

Proudly Serving Rural Routt County \* City of Steamboat Springs \* Town of Hayden \* Town of Oak Creek \* Town of Yampa \* Routt County School Districts

Date: 07/16/2021

Address: 1859 RIVER QUEEN LN, STEAMBOAT

Owner: SUNSHINE STEAMBOAT, LLC

Parcel ID: 313400003

Zoning: TOWN

Property Use: VAC

Lot Area: 0

Year Built: 0

Book Page: SPECIAL



Building

TB-21-755

To: Bradley Bartels **Design information:** 

Occupancy Classification: R3, U

Character and Use: Two-Family Residence w/ Detached Garage under TB-21-835

Number of Stories: 2 w/Basement Type of Construction: Type V-B

Occupant Load: <10

**RCRBD Record Set** 

08/24/2021

The following items and questions below will need to be addressed prior to the Building Permit being issued. Please make all necessary corrections and resubmit the corrected plans for review. Corrections shall be "ballooned" if made on the plans and a narrative that specifically references the items on this list shall be included with the resubmittal.

- 1. This project is in the concurrent review process with the other Departments. Review comments in Viewpermit as applicable, when available.
- 2. Based on the submittal Work Description Duplex- Unit A and Unit B under permit TB-21-834 makes this a single building, however will these units will be divided with a property line between units? If solely by a property line, the party wall shall separate into two buildings with more flexibility with common
  - or condominium ownership. Either way, shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302 for exterior walls (two one-hour walls).
  - Other items that shall be met include extent of rating and be tight against the exterior wall, and wall assemblies shall extend from the foundation to the underside of the roof sheathing. Projections of exterior walls of dwellings and accessory buildings shall comply with Table R302.1(1) as per R302.1 Exterior walls with 1 hour on the underside. Gas piping installed downstream of the point of delivery shall not extend through any unit other than the unit served by such piping. G2415.3 (404.3) Prohibited locations.
- 3. The insulation values appear out of compliance for Zone 7. Building sections for this project shall include the information per prescriptive energy path as per attached Energy Code Compliance chart for reference below

for values and distances. Building sections should incorporate all items and corrected to show following specific items:

- a. While 1/A3.04 shows F-1 with R-21 insulation under Entry, however a minimum of R-10 insulation as required from the top of concrete downward 48" (vertical and/or horizontal) for slab on grade.
- b. Similarly, the garage appears to have similar conditions at slab on grade. Please specify how each element is to be insulated with minimum R-values and attention to minimum distances (if applicable).

Either could be traded off in REScheck.

- 4. Appendix F Radon Mitigation: This appendix was adopted with the 2018 IRC, please submit plans showing how and where you intend to install under slab radon mitigation piping, and the location where this pipe will rise vertically above the slab. Our adoption only requires the under slab portion of the work to be done in accordance with Appendix F, then you may cap the pipe and label it above the slab. You also must provide an outlet or junction box for a future power for a fan within a close proximity of the capped pipe or future fan location.
- 5. Provide missing structural connections referenced in details on Sheet A5.10
- 6. Provide complete plans with structural and insulation details for detached garage and trash storage if taller than 6-feet (permit will be required).

✓ Items noted below do not require a response or comment back during the Plan Review in order for us to approve this permit. The Items below are required and will be checked by field inspectors. Please take time to review these items in advance of starting any work to ensure your project is ready for inspection.

- Separate Electrical Plumbing Permits must be applied for and obtained prior to any work being done within
  these trades. Note Electrical and Plumbing trades are protected by the State, Licensed Contractors must apply
  and perform this work on all Commercial Properties, and additionally their employees working on these
  projects must be registered or licensed with the State of Colorado and work directly under Licensed Individual
  managing the project.
  - On Residential Properties owners are allowed to apply for the permit and perform their own Electrical and Plumbing work if this is their primary residence and they sign and complete our Home Owner Agreement form.
- 2. Separate Mechanical Permits must be applied for and obtained prior to any work being done within this trade. Mechanical Contractors must be registered and approved by the Routt County Regional Building Department.
- 3. Deferred Submittal Required: Heat Load Calculations and heating information for the new construction must be submitted prior to Electrical, Plumbing, and Mechanical Permits being issued.
- 7. Deferred Submittal Required: Stamped Truss Drawings to be provided for review and approval by RCRBD prior to trusses being set and inspections being done.
- 8. Deferred Submittal: Applicant to provide information on how Whole House Ventilation requirements will be met in accordance with IEEC R403.6 and 403.6.1 and IRC M1507.3.
- 9. Deferred Blower Door Test Certificate of Compliance: The building or dwelling unit (except within the Town of Hayden) must complete a Blower Door Test with a passing score of Equal/Less than 3 air changes per hour (3ACH), this certificate must be present for our Inspectors prior to approval of a Temporary Certificate of Occupancy/ Certificate of Occupancy. Please also upload this Blower Door Certificate to the Building Department Permit Record, or email this to our staff and they will upload the document.
- 10. The Routt County Building Department has developed the Residential Private Garage Floor Drain Policy. This Policy outlines the regulations per Jurisdiction on private residential garage floor drains throughout Routt County, ask Routt County personnel for policy.
- 11. <u>R308 Glazing.</u> Except as indicated in Section R308.1.1, each pane of glazing installed in hazardous locations as defined in SectionR308.4 shall be provided with a manufacturer's or installer's label, designating the type and thickness of glass and the safety glazing standard with which it complies, which is visible in the final

- installation. The label shall be acid etched, sandblasted, ceramic-fired, embossed mark, or shall be of a type which once applied cannot be removed without being destroyed. Exceptions: Tempered spandrel glass may be identified by the manufacturer with a removable paper label.
- 12. Fenestration U-factors windows and doors less than or equal to 0.30 will be required. This will apply for all glazing in windows and doors. The builder shall leave the National Fenestration Rating Council (NFRC) labels on all windows and doors with glazing at time of rough inspections so inspectors can verify the glazing requirements. Also provide documentation that the garage doors have a maximum U-factor of 0.32.
- 13. Bath Exhaust ducts if ran in unconditioned space must be done in insulated duct.
- 14. <u>R321.1 Premises identification.</u> Approved numbers or addresses shall be provided for all new buildings in such a position as to be plainly visible and legible from the street or road fronting the property.
- 15. SECTION R314 SMOKE ALARMS
  - R314.1 General. Smoke alarms shall comply with NFPA 72 and Section R314.
  - R314.1.1 Listings. Smoke alarms shall be listed in accordance with UL 217. Combination smoke and carbon mon-oxide alarms shall be listed in accordance with UL 217 and UL 2034.
  - R314.2 Where required. Smoke alarms shall be provided in accordance with this section.
  - R314.2.1 New construction. Smoke alarms shall be pro-vided in dwelling units.
  - R314.3 Location. Smoke alarms shall be installed in the following locations:
  - 1. In each sleeping room.
  - 2. outside each separate sleeping area in the immediate vicinity of the bedrooms.
  - 3. on each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
  - 4. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section R314.3.

#### **SECTION R315**

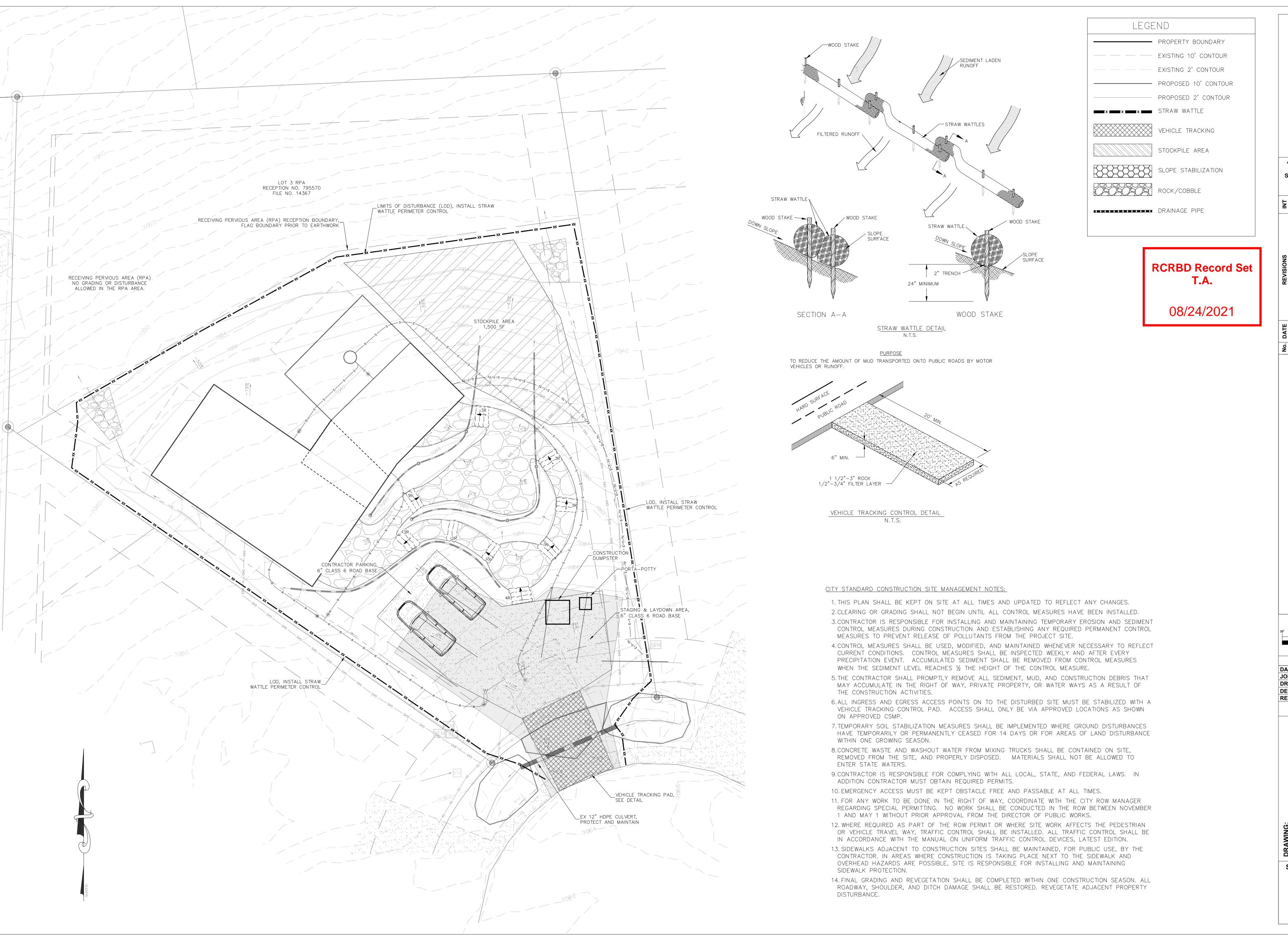
#### CARBON MONOXIDE ALARMS

- R315.1 General. Carbon monoxide alarms shall comply with Section R315.
- R315.1.1 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217.
- R315.2 Where required. Carbon monoxide alarms shall be provided in accordance with Sections R315.2.1 and R315.2.2.
- R315.2.1 New construction. For new construction, car-bon monoxide alarms shall be provided in dwelling units where either or both of the following conditions exist.
- 1. The dwelling unit contains a fuel-fired appliance.
- 2. The dwelling unit has an attached garage with an opening that communicates with the dwelling unit.
- R315.3 Location. Carbon monoxide alarms in dwelling units shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bath-room, a carbon monoxide alarm shall be installed within the bedroom.
- R315.4 Combination alarms. Combination carbon monoxide and smoke alarms shall be permitted to be used in lieu of carbon monoxide alarms.
- R315.5 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

#### Exceptions:

- 1. Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power.
- 2. Carbon monoxide alarms installed in accordance with Section R315.2.2 shall be permitted to be battery powered.

Reviewed by:	Ted Allen	Date: July 16, 2
Reviewed by:	I ed Allen	Date: July 16,



440 S. Lincoln Ave, Suite 4A P.O. Box 775966 Steamboat Springs, CO 80487 (970)-871-6772 www.fourpointsse.com

T 3, EAC SUBD

**Horizontal Scale** Contour Interval = 2 ft DATE: 8-2-2021 JOB #: 1998-001 DRAWN BY: JLW **DESIGN BY: JLW** REVIEW BY: RL IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

SHEET#

CIVIL	
1 2	SITE PLAN & PROFILE DETAILS
DESIGN	
A0.00	SCOPE OF WORK
A0.01	NOTES & ASSEMBLIES LEGEND
A1.00	SITE PLAN
C2.00	FOUNDATION PLAN
A2.00	FLOOR PLAN - LOWER
A2.01	FLOOR PLAN - MAIN
A2.02	FLOOR PLAN - UPPER
A2.03	ROOF PLAN
A3.01	BUILDING SECTIONS
A3.02	BUILDING SECTIONS
A3.03	BUILDING SECTIONS
A3.04	BUILDING SECTIONS
A3.05	BUILDING SECTIONS
A4.01	EAST ELEVATION
A4.02	SOUTH ELEVATION
A4.03	WEST ELEVATION
A4.04	NORTH ELEVATION
A4.05	EXTERIOR MATERIALS LEGEND
A4.06	EXTERIOR STREET VIEW
A5.10	WALL SECTION
A5.11	WALL SECTION

WINDOW DOOR SCHEDULE

A9.00

## STRUCTURAL

S1	FOUNDATION PLAN
S2	DETAILS
S3	MAIN FLOOR FRAMING
S4	UPPER FLOOR FRAMING
S5	ROOF FRAMING

#### DESIGN

SCOTT&SCOTT 299 E19TH AVENUE VANCOUVER BC V5V 1J3

DAVID SCOTT MAIBC MRAIC 604 737 2541 DAVID@SCOTTANDSCOTT.CA

SUSAN SCOTT MAIBC 604 788 7990 SUSAN@SCOTTANDSCOTT.CA

### STRUCTURAL ENGINEER

ENGINEERING DESIGNWORKS, INC. 1855 SKI TIME SQUARE, UNIT E2C STEAMBOAT SPRINGS, CO 80487

Contact: Carl Warnke p. 970-879-4890

email: carl@engineeringdesignworks.com

## CIVIL ENGINEER

FOUR POINTS SURVEYING AND ENGINEERING 440 S LINCOLN AVE #4A STEAMBOAT SPRINGS, CO 80487

Contact: Walter Magill
p. 970-871-6772
email: walterm@fourpointsse.com



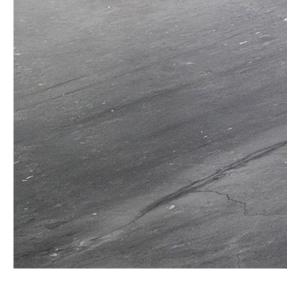








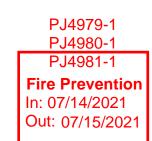




# Steamboat Springs Alpine House

1859 River Queen Lane,

Steamboat Springs, CO 80487





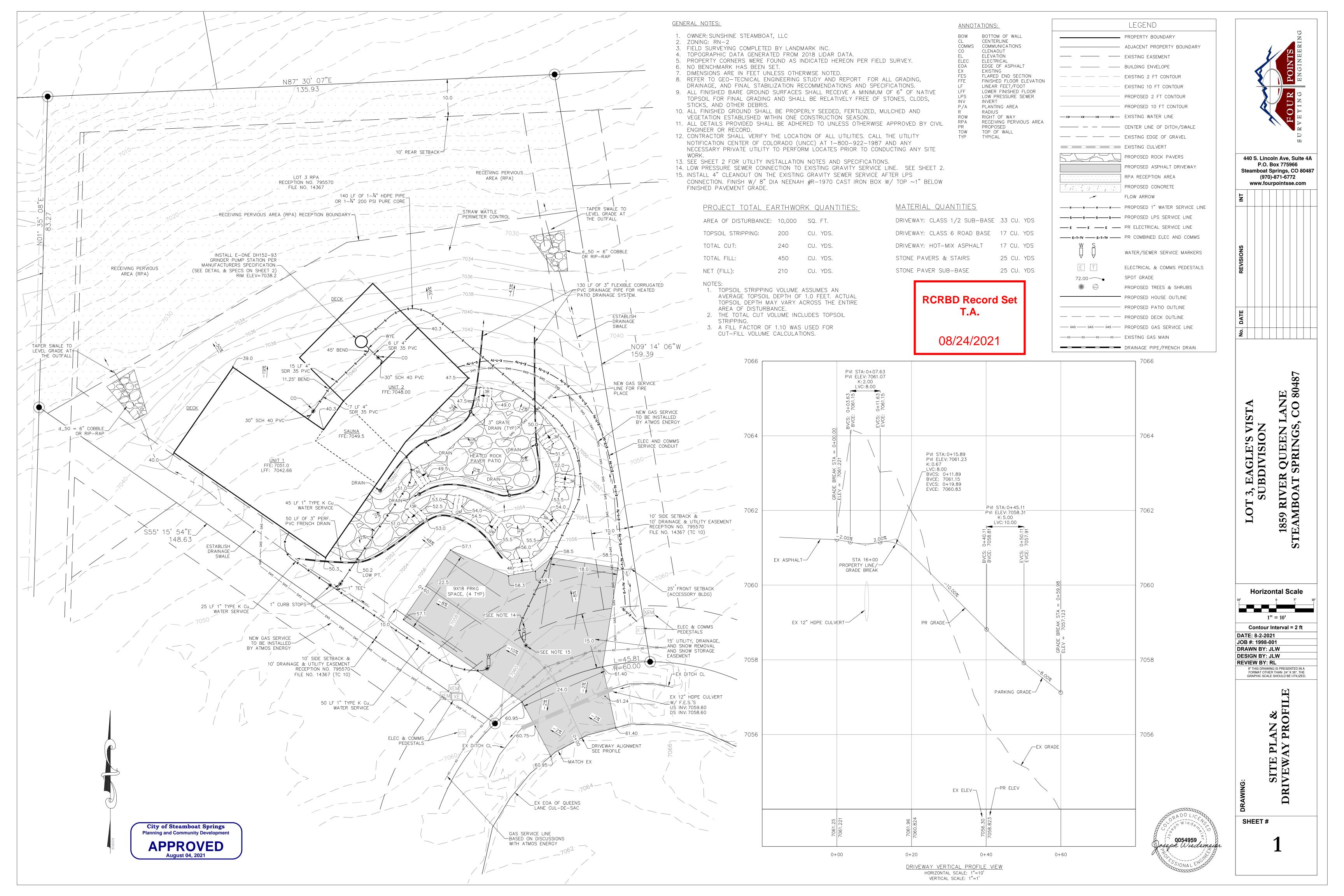
ATMOS ENERGY CORPORATION

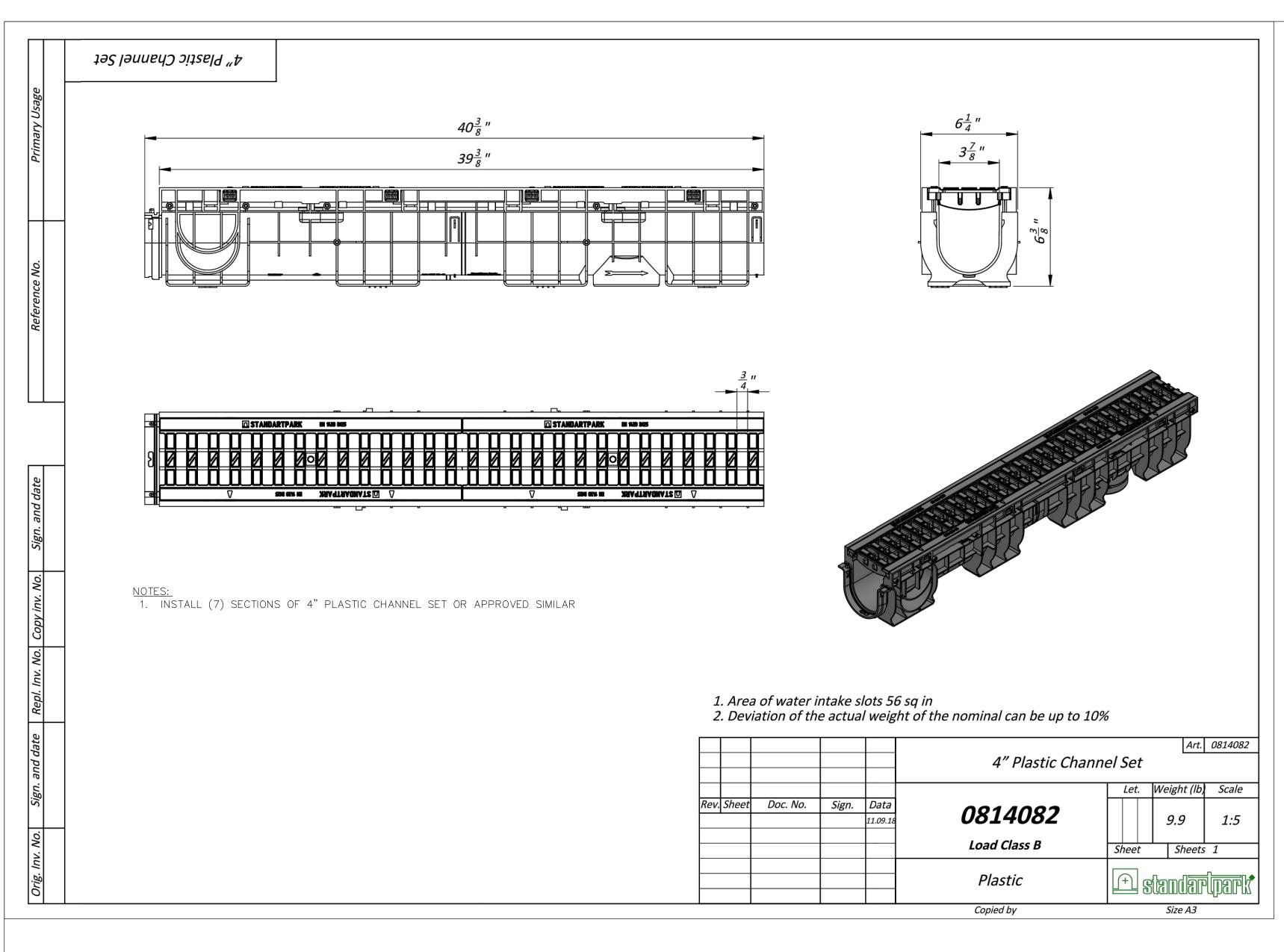
2# Systems will not be allowed unless proof of an appliance requiring a MINUMUM of over 7" W.C. is provided to Atmos Energy Corporation personnel for review.

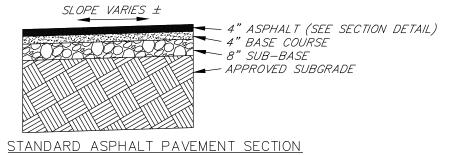
Meter location must be approved by an Atmos Energy Corporation employee during a mandatory site visit to be scheduled after foundation is in place.

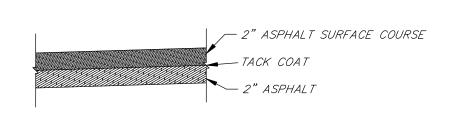
Meters will not be allowed under a shedding roofline or where overhanging snow is a danger to the meter set.

Any work being performed in utility easements must be approved by Atmos Energy Corp.

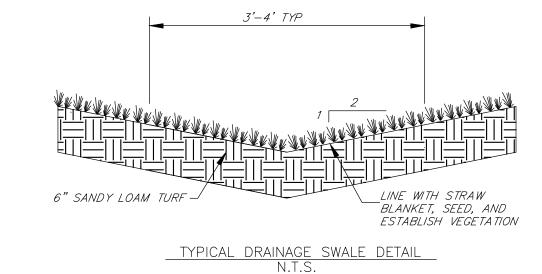


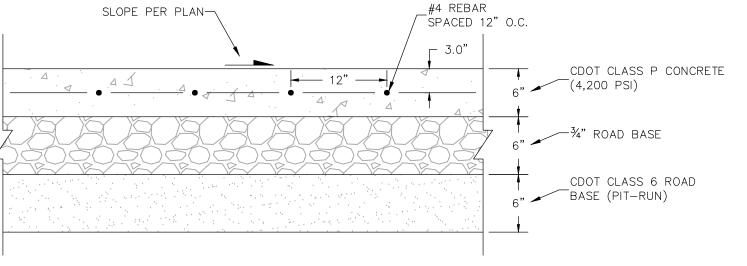






4"ASPHALT SECTION DETAIL





## CONCRETE PAVING NOTES:

- 1. PRIOR TO THE PLACEMENT OF SUB-BASE AGGREGATES, THE EXPOSED SUB-GRADE SOILS SHALL BE UNIFORMLY SCARIFIED, MIXED, AND MOISTURE TREATED TO WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT,
- AND THEN RE-COMPACTED TO AT LEAST 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY. 2.  $\frac{3}{4}$  ROAD BASE AND CDOT CLASS 6 ROAD BASE AGGREGATES SHALL BE COMPACTED TO AT LEAST 95% OF
- THE MAXIMUM MODIFIED PROCTOR DENSITY IN ACCORDANCE WITH ASTM 1557. 3. CONCRETE SHALL BE CDOT CLASS P (4,200 PSI AT 28 DAYS). OR APPROVED EQUAL.
- 3.1. CEMENT CONTENT: 660 LBS/CY 3.2. AIR CONTENT: 4%-8%
- 3.3. WATER-CEMENT RATIO: 0.44 4. CONCRETE SHALL RECEIVE A BROOM FINISH.
- 5. CONTROL JOINTS SHALL BE INSTALLED 10' O.C. 6. CONTROL JOINTS SHALL BE SAW CUT 2" DEEP AND 1" WIDE.
- ALL CONTROL JOINTS SHALL RECEIVE JOINT SEALANT. 8. EXPANSION JOINTS SHALL BE USED AT ABUTTING CONCRETE FOUNDATIONS AND ASPHALT PAVING AND SHALL RECEIVE PREFORMED JOINT FILLER AND JOINT SEALER. EXPANSION JOINTS SHALL BE 1 WIDE WITH 1 DEPTH OF JOINT SEALER.

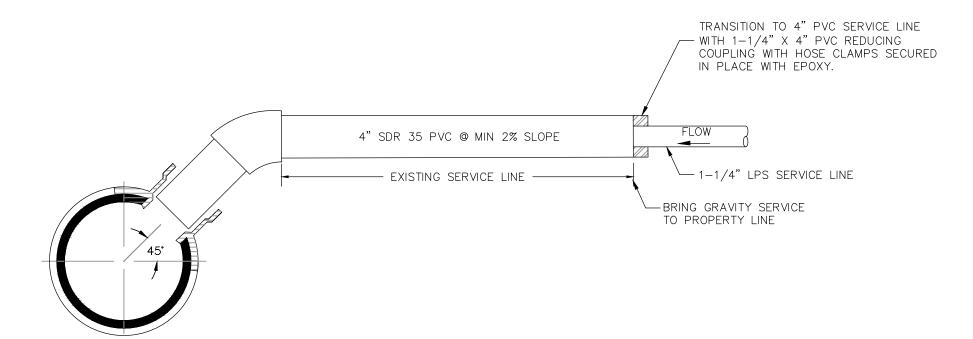
REINFORCED CONCRETE PAVING DETAIL HORIZONTAL SCALE: 1"=10'

## UTILITY INSTALLATION NOTES:

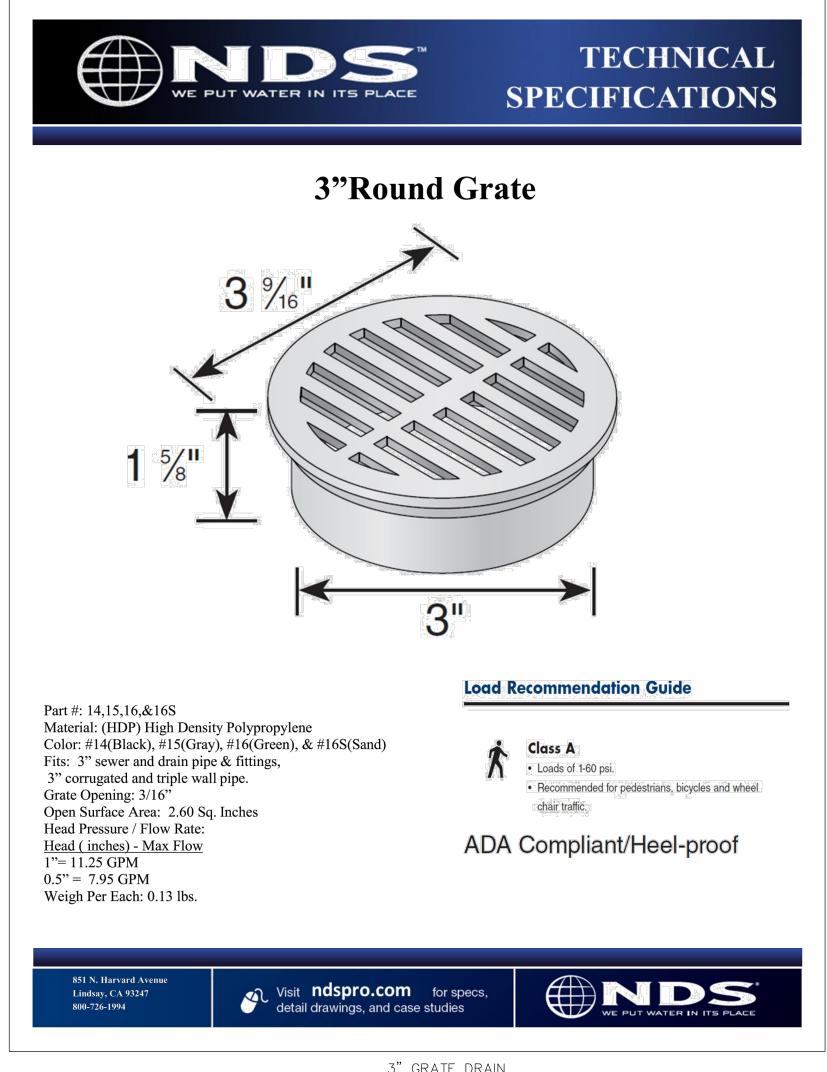
- 1. UTILITY LOCATES ARE PER FIELD LOCATES AND AS—BUILT RECORDS AND ARE APPROXIMATE AND HAVE NOT BEEN VERIFIED WITH POTHOLING. FOUR POINTS SURVEYING AND ENGINEERING SHALL NOT BE ACCOUTABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF
- MINIMUM SEPARATION BETWEEN PARALLEL WATER AND SEWER SERVICES IS TEN (10') FEET.
   ALL WATER AND SEWER SERVICE INSTALLATION WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF MOUNT WERNER WATER AND SEWER
- STANDARDS AND SPECIFICATIONS, LATEST EDITION. 4. ALL DRY UTILITY WORK (ELECTRICAL, GAS, AND COMMUNICATIONS) SHALL BE IN ACCORDANCE WITH THE RESPECTIVE UTILITY SERVICE PROVIDERS. 5. WATER SERVICE LINES AND FITTINGS SHALL BE 1" COPPER TYPE K. WATER SERVICE LINE SHALL SHALL HAVE A MINIMUM OF 7-FT OF COVER.
- 6. SEWER SERVICE LOW PRESSURE LINE SHALL BE HDPE OR 200 PSI POLY PURE CORE. SEWER SERVICE LINE SHALL HAVE A MINIMUM OF 4-FT OF COVER. GRAVITY SERVICE LINES SHALL BE 4" SDR 35 PVC INSTALLED AT A MIN 2% SLOPE AND MIN 4-FT DEPTH. GRAVITY SERVICE LINE
- EXITING THE HOUSEHOLD SHALL BE SCHEDULE 40 PVC FOR A MINIMUM OF 30".
  7. ALL MATERIALS USED FOR BACKFILL SHALL BE FREE FROM DEBRIS, ORGANIC MATERIAL, COBBLES, BOULDERS, LARGE ROCKS OR STONES OR
- FROZEN SOILS GREATER THAN 6-INCHES IN DIAMETER. 8. ALL TRENCHES SHALL BE COMPACTED TO 95% AS DETERMINED BY ASTM D698 (STANDARD PROCTOR) OR AS SPECIFIED BY GEOTECHNICAL ENGINEER (NWCC).

#### GRINDER PUMP INSTALLATION NOTES:

- 1. INSTALL E-ONE DH152-93 GRINDER PUMP PER MANUFACTURERS TYPICAL INSTALLATION INSTRUCTIONS.
  2. BEDDING MATERIAL SHALL CONSIST OF 6-INCHES OF ROAD BASE OR APPROVED SIMIALR. COMPACTION REQUIREMENTS SHALL EXCEED 95% MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO T-180 TEST PROCEDURES.



PRESSURIZED WASTEWATER SERVICE LINE AND CONNECTION TO A GRAVITY SERVICE LINE



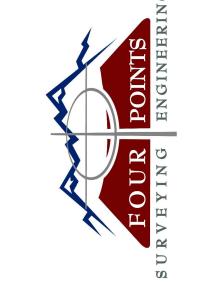
<u>3" GRATE DRAIN</u>

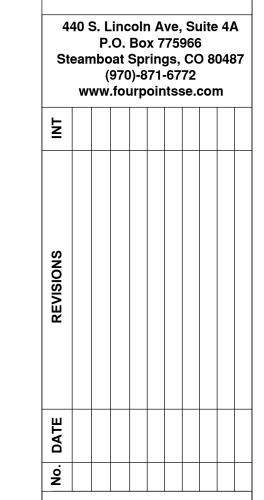
## NOTES:

1. CONTRACTOR MAY USE AN APPROVED SIMILAR GRATE DRAIN. 2. ATTACH GRATE DRAIN TO 3" FLEXIBLE PVC W/ 3" PVC TEE AND 3" PVC RISER.



08/24/2021





QUEEN | PRINGS, LOT 3, EAC SUBDI 1859 RIV STEAMBOA

DATE: 7/21/2021 JOB #: 1998-001 DRAWN BY: JLW **DESIGN BY: JLW REVIEW BY: RL** 

IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

SHEET#



#### Scope of Work

The following is a preliminary overview for schematic level costing. Structural information is preliminary and subject to finalization.

#### **GENERAL CONDITIONS**

#### 1 Site Prep / Planning

Site preparation for foundation, service connections and rainwater management to be provided inc. backfill, sub slab and perimeter gravel and draintile, base and driveway to garage (Area TBD on Site).

#### Services

200 amp min. Electrical services to be provided inc. sub panel to garage. Services to be underground from client specified pole location to garage. Sanitary plumbing to Grinder Pump. Underground to dwelling units and perimeter drain/ rock pits as req'd.

1" water line for each dwelling unit. Cable and data lines to client specified mast and underground to dwelling units.

#### Foundation/ Slabs

8" CIP concrete foundation to frost protection depth.

Propane service (gas if available)

Visible face to be formed with first use forming and considered for appearance (Windows to be 1/2" reveal to window frame with A Grade form blockouts at locations):

Option A- To be board form/ EZ strip forming with ties between boards Option B- To be standard D.Fir form plywood with cone or button ties.

Bituminous Waterproof membrane to exterior of concrete forms to 6" below grade + Mirror Drain (Dorken Delta or Equiv,) Silane sealer to concrete above.

All slabs/ stairs and associated flat work to be placed and finished to +/- 1/8'- 10' with square cornered inside and outside corners. Cut lines to confirmed with Design Consultant and completed w./ circular (Skil) saw with diamond blade and straightedge. All finished trowelled slabs to be (interior) smooth troweled w./ silane sealer and no sheen janitorial wax. Exterior slab work to be float finished w./ 1-2 passes of power trowel to traction finish. All interior topping slabs to be 3" thickness typ. c/w mesh reinforcement and heating tubing where applicable.

#### Framing (prelim. to be confirmed)

Exterior walls as noted to be 2x6 stud per Structural on 2x6 plate (c/w R-21 cavity insulation with continuous 1" XPS outsulation) All 6x10 Roof/ Wall Framing exterior walls as noted to be SPF per Structural (visible) with 2x tongue and groove decking, c/w 1/2" plywood sheathing. All interior walls to be 2x4/6 as per romm dimension requirments as noted.

Main floor framing to be TJI or LVL per Structural c/w Ply subfloor to receive concrete topping Upper floor framing to be 6x10 per Strucutral with 2x tongue and groove decking, c/w 1/2" plywood sheathing. Floor assembly to c/w. 1 1/2" furring strips for mineral wool sound insulation through out and dropped @ bathroom for flush tile and shower pan installation. 1" subfloor for 3/4" wood flooring. All 6x10 Roof/ Wall Framing as noted to be SPF (visible) per Structural with 2x tongue and groove decking, c/w 1/2" plywood sheathing. C/w with outsulation.

### Thermal and Moisture Protection (ACH <0.6)-provide blower door test prior to interior finish installation and pre-occupancy.

Wall moisture barrier (ext) to be Solitex Adhero c/w Tescon Vana Tape

Air barrier (int) to be Proclima Intello Plus c/w Tescon Vana Tape Roofing Underlayment to be fully adhered Soprema Lastobond Shield HT. (to be returned 8-10" down top of wall exterior moisture barrier as perimeter sub flashing. Insulation to be rockwool for cavity fill and exterior above grade board

Basement to be XPS with mineral wool cavity (c/w 2lb. closed cell spray foam as req'd for air barrier continuity at joist pockets) Roof insulation to be: 2 lb. closed cell spray foam insulation, min. R-49.

Provide Rock wool sound insulation for all interior walls and floor cavities (and rockwool board for upper floor framing) Roofing to be metal - 7/8" corrugated steel siding (22ga/ Weathering Steel finish), with 18 ga. flashing to match.

## Exterior

Windows and sliding doors to be metal (clear anodized aluminum, or color to match Weathering steel.) max. U-30 as req'd.

Where indicated 7/8" corrugated steel siding (22ga/ Weathering Steel finish), with flashing to match. Douglas Fir T&G Boards where indicated (3-1/4" face w/ 1/8" shadowline) where indicated - C Clear or better T&G Soffit/ Wall Cladding. Flashing to be square back hem returned 3/4" @ windows and doors, 2" at eave, and 4" at top of wall/ roof transition.

#### 7 Interior

## Wall and Ceiling Finishes:

T&G Ceiling Cladding throughout to match visible 2X decking. Lower Level

T&G Wall Cladding where noted to match visible 2X decking. Hallway Walls- GWB \* tile and backer board in bathroom.

Inside face of exterior wall- Visible 6x10 Rafters/ 2X decking. Main Floor Interior Walls- GWB \* tile and backer board in bathrooms. Inside face of exterior wall - Visible 6x10 Rafters/ 2X decking.

Interior Walls- GWB \* tile and backer board in bathrooms. Garage Exposed Framing.

All GWB to #4 finish typ. and #5 within 6' of adjacent wall or ceiling where perpendicular to glass. All GWB to be painted with washable flat paint.

All GWB walls to finished to the edges have a 1/2" shadow trim bead (Flannery, Fry Reglet or Gordon) or 1/8" shadow edge or L bead where abutting a dissimilar material or frame.

All tile to be preped with cement or schulter backing panel w./ fabric reinforces liquid waterproofing for all shower/ tub deck and skirt and base transitions. tile TBD@ +/- 3-4" square or rect.- assume 1/16" grout lines and bullnose edge tiles on corners and edges.

Interior doors to be 1 3/4" solid core wood painted with frames bevel prepped for mud into adjacent GWB wall w./ confil and feather. To be supplied with stainless steel or brushed nickel hinges and levers to be supplied by Design Consultant (mortice prep req'd). Sliding doors to be Slid Retrac or Hawa Junior with track recessed for door to be pocketed or 1/8" off of ceiling face.

#### Flooring:

Basement, main floor, and garage to be smooth trowelled concrete- protected during construction, all hairline cracks filled with a maipai or flextile unsanded tile grout of matching colour, cleaned with a light pass of 180 grit on a hand orbital sander or janitorial screen, sealed with a silane sealer and a low sheen janitorial floor wax.

Upper floor to be a T&G flooring to match visible 2X decking, finished with Saicos hardwax oil finish. To be engineered if over radiant and C-Clear mixed grain 3.25"W x 6-8' L with min 30% over 10' and max 30%

Stair treads to be Jointed 90° L caps from C-Clear 2x12 and 2x8 stock to match upper level flooring.

#### Millwork

Casework to be exposed edge GIS D.Fir Plywood where back of panel not visible and marine grade D.fir plywood for all doors and visible panel. To be finished in a rubbing linseed or hardwax oil of the design consultant's colour selection. rods to be 1- 1/2" Hem fir dowel or 1 1/4" stainless steel ornamental tube. Drawer boxes to be prefabricated maple dovetail boxes or b.birch plywood construction. All shelves below 4' to have 1.5" upstands and be pullout. all shelves above 4' to be pin adjustable. Full height pantry pullout units to be Hafele or Richelieu supplied w./ chrome baskets. Allow for panels for fridge and dishwashers and hardware installation. All drawers to be softclose, typ.

Millwork to include vanities, kitchens, and closets (2 drawer bases w./ shelf and rod). Counter tops TBD. Cost per solid surface, stone, quartz or stainless steel.

Fixtures TBD- \$20,000 Budget allowance for GC or owner supply.

Allow for installation, connections and coordination of panel ready fridge and DW. Allow for water RI to fridges.

## Electrical

Rough in wiring to be supplied and installed. Fixtures TBD- \$20,000 Budget allowance for electrician or owner supply.

A Lighting and device plan will be provided by the design consultant. Lights are semi-recessed wallmount (TBD) for most applications (no potlights) and to be wired for trade supplied dimmers for all locations. Allow for pendant light above dining tables. 4 aluminum round floor outlets in the living areas and stainless steel (or white painted steel) device covers with white decora devices. All tel data locations to be in a partitioned multgang single plate with adj. line volt power.

Provide data ports in each floor level and suite w./ homerun to garage. Provide option for Security.

## If central heating is not hydronic provide for undertile heating mats in each bathroom.

## Plumbing

Rough-in plumbing to be supplied and installed. All wastelines to be wrap insulated or cast iron in partition walls.

Fixtures TBD- \$20,000 Budget allowance for plumber or owner supply. Plumber to supply chrome stops, escuteons and Ptraps where visible. (no visible plastic inwall pipe). Allow for 4 frost free hosebibs and 1 landscape water termination.

Provide cost option for shop sink in garage and floor drain.

Provide cost option for Hydronic boiler heating system with domestic water heating component.

Provide cost option for water filtration/ softner. Provide cost option for gas cooktops.

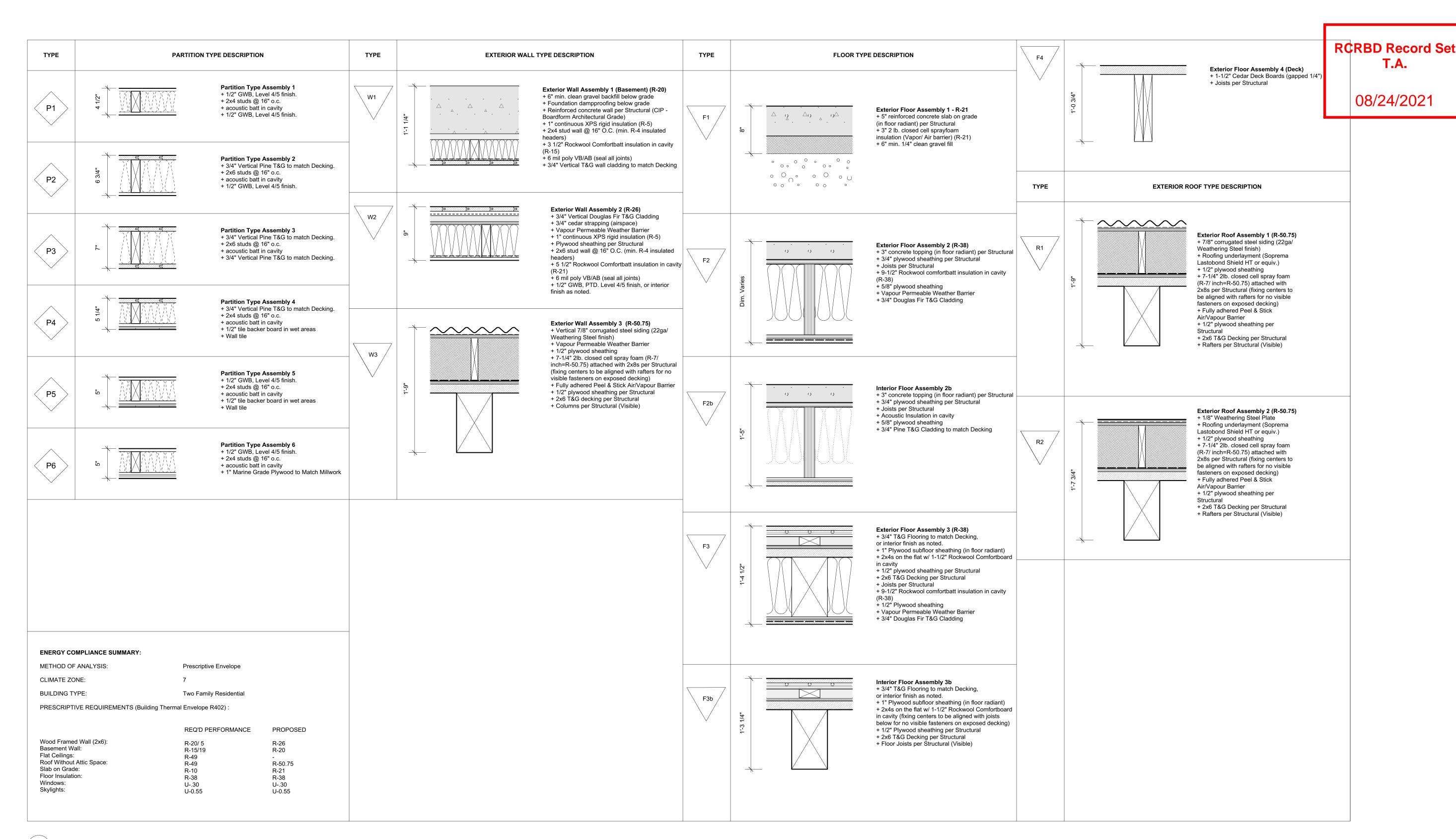
## HVAC

Concrete toppings/ slab on grade to have radiant infloor heating.

Provide cost option for radiant infloor heating for upper levels (Warmboard, or equiv). Kitchen cooktops to have downdraft vent.

All vents to be coordinated in existing wall or ceiling framing (no bulkheads) head positions to be provided +/- 4' tin mark up for design consultant to return specific location in drawings.

Scope of Work



1 Exterior Assemblies Legend 1-1/2" = 1' (@24"x36" plot)

## **GENERAL NOTES:**

1. General notes are an aid to the Contractor in understanding the work and should not be construed to be complete in every detail. It is the specific and explicit responsibility of the Contractor to visit the site, verify the existing conditions, familiarize him/herself thoroughly with the scope of work, and report all discrepancies between the drawings and the assumed or actual conditions to the attention of the Design Consultant.

2. It is the specific and explicit responsibility of the Contractor to examine the contract documents in their entirety, to report all discrepancies encountered therein to the attention of the Design Consultant and await resolution before proceeding with any work affected by those discrepancies. No one drawing or specification shall "govern"; Contractor shall coordinate between design drawings and specifications.

NOTES: + All new construction as per 2018 IRC and 2018 IECC. + All device locations as shown in architectural drawings. If Building regulations require alternate location it is to be approved by Design Consultant prior to placement. + Provide power and service requirements to equipment shown in the equipment schedule.

3. All lines, symbols, notes, poche, and other graphic devices contained in the contract documents and specifications carry specific or inferential meaning and are all part of the Contractor's scope of work, whether or not they have been included in the original estimate. Any items for which the Contractor requires further clarification shall be brought to the attention of the Design Consultant before commencement of any work.

4. Design work is the responsibility of the Design Consultant. The Contractor shall assume all responsibility and design liability for changes in the scope of work not brought to the attention of the Design Consultant.

DIMENSIONS: All dimensions must be verified on site. Do not scale off drawings. Plans take precedent over elevations. In the absence of dimensions, or if discrepancies exist,

consult Designer. All minimum dimensions are to

comply with the International Residential Code. SHOP DRAWINGS: Submit shop drawings to the Design Consultant and Engineer for approval prior to manufacture of prefabricated elements of the building.

5. Contractor to secure and pay for all licenses, permits, and other applicable fees necessary for the performance, completion, inspection and approval of all work.

6. Contractor shall coordinate the work of all sub-contractors, including those under separate contract with the Owner. 7. Contractor shall maintain a clean and safe project site at all

8. Contractor shall provide all necessary barricades and other forms of protection to prevent injury to Owner, employees and the General Public during the period of construction.

All materials and workmanship must comply with the

the work. It is the Builder's responsibility to gain

necessary approval from all relevant Authorities.

requirements of all authorities having jurisdication over

Contractor will acheive the result.

DESIGN CONSULTANT REQUIREMENTS AND APPROVALS: Scott & Scott is registered in the Province of British It is the Builder's responsibility to notify Design Consultant and to Columbia. All aspects of work completed outside of seek prior written approval for materials and workmanship which British Columbia is conceptual in nature and where required an Architect of record is to be engaged by deviates from instructions provided by the Design Consultant. the client for the completion of work. **AUTHORITIES' REQUIREMENTS AND APPROVALS:** 

9. Alternates and Substitutions to specified items are to be submitted to the Design Consultant/ Engineer for review and approval.

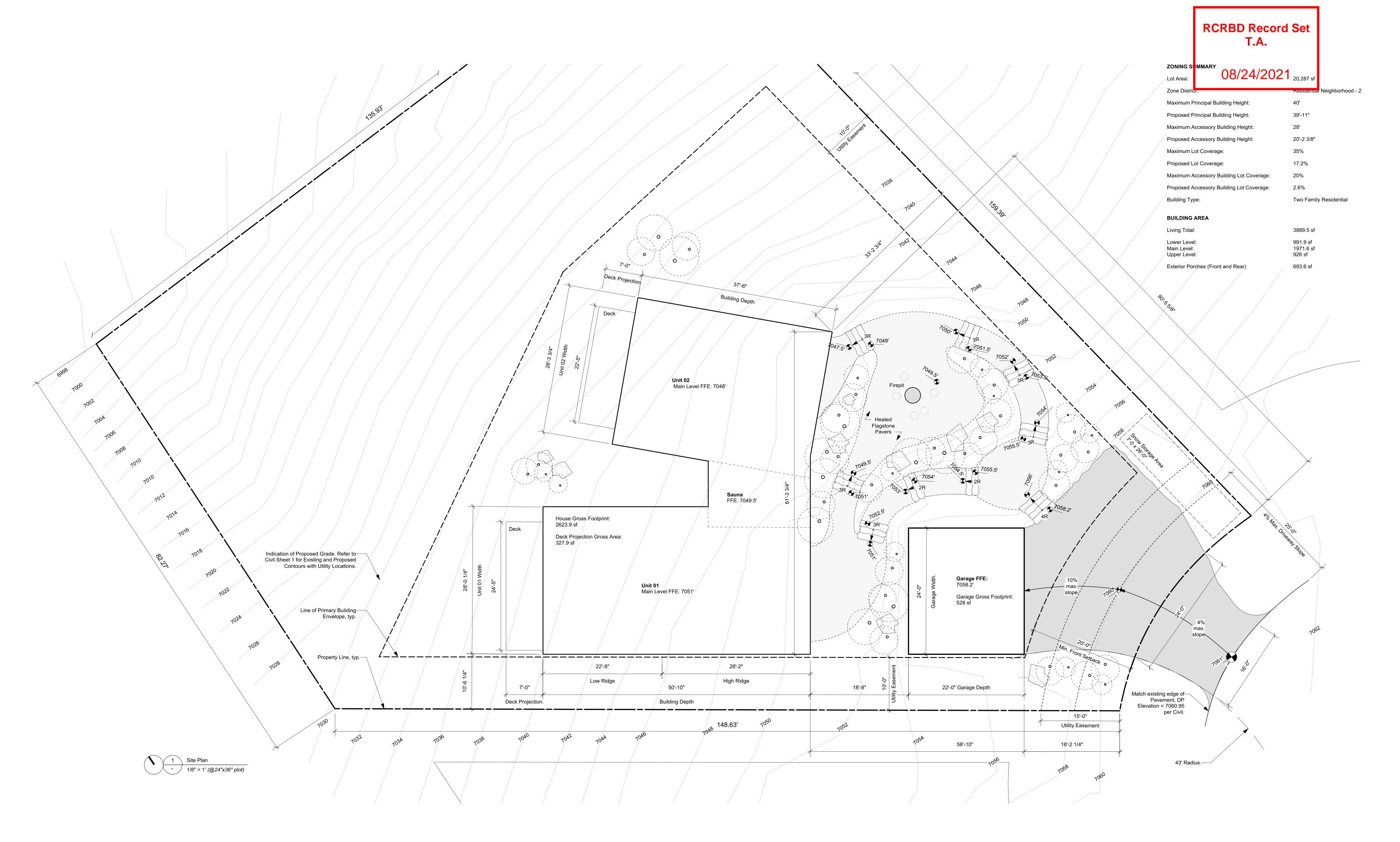
10. Contractor to provide structural backing/ blocking for all wallmounted fixtures, finishes, and equipment.

11. Contractor to install all materials and equipment as per manufacturer's written instructions and/or recommendations.

12. Contractor is responsible for all means and methods of construction, including temporary shoring, bracing, or other protection as required. Engineering specifies finished condition only, without assuming knowledge nor responsibilty for how the

Steamboat Springs
Alpine House

**Notes & Assemblies Legend** 

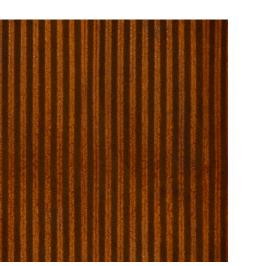








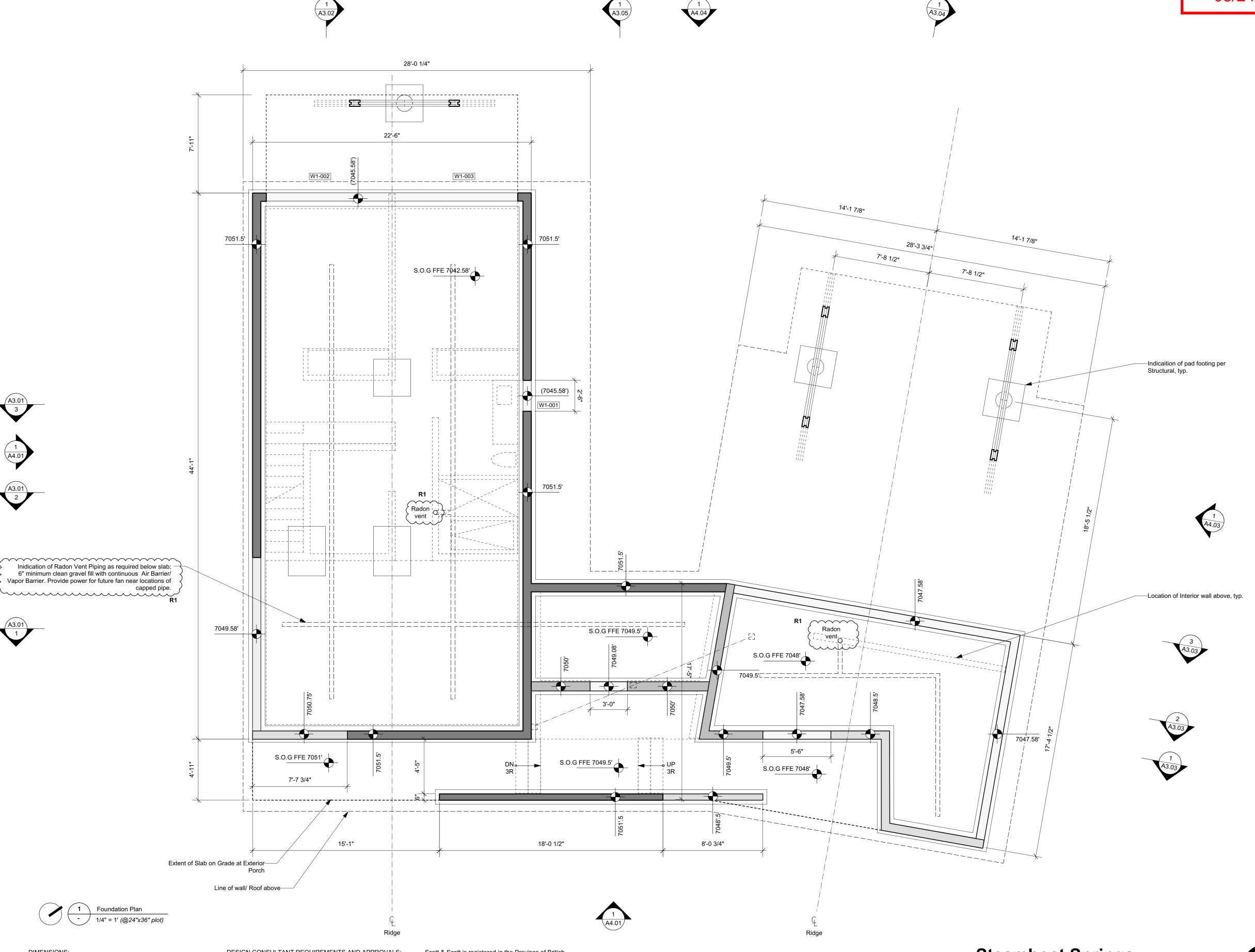






Steamboat Springs
Alpine House
Steamboat Springs, Co

A1.00



NOTES:

+ All new construction as per 2018 IRC and 2018 IECC.

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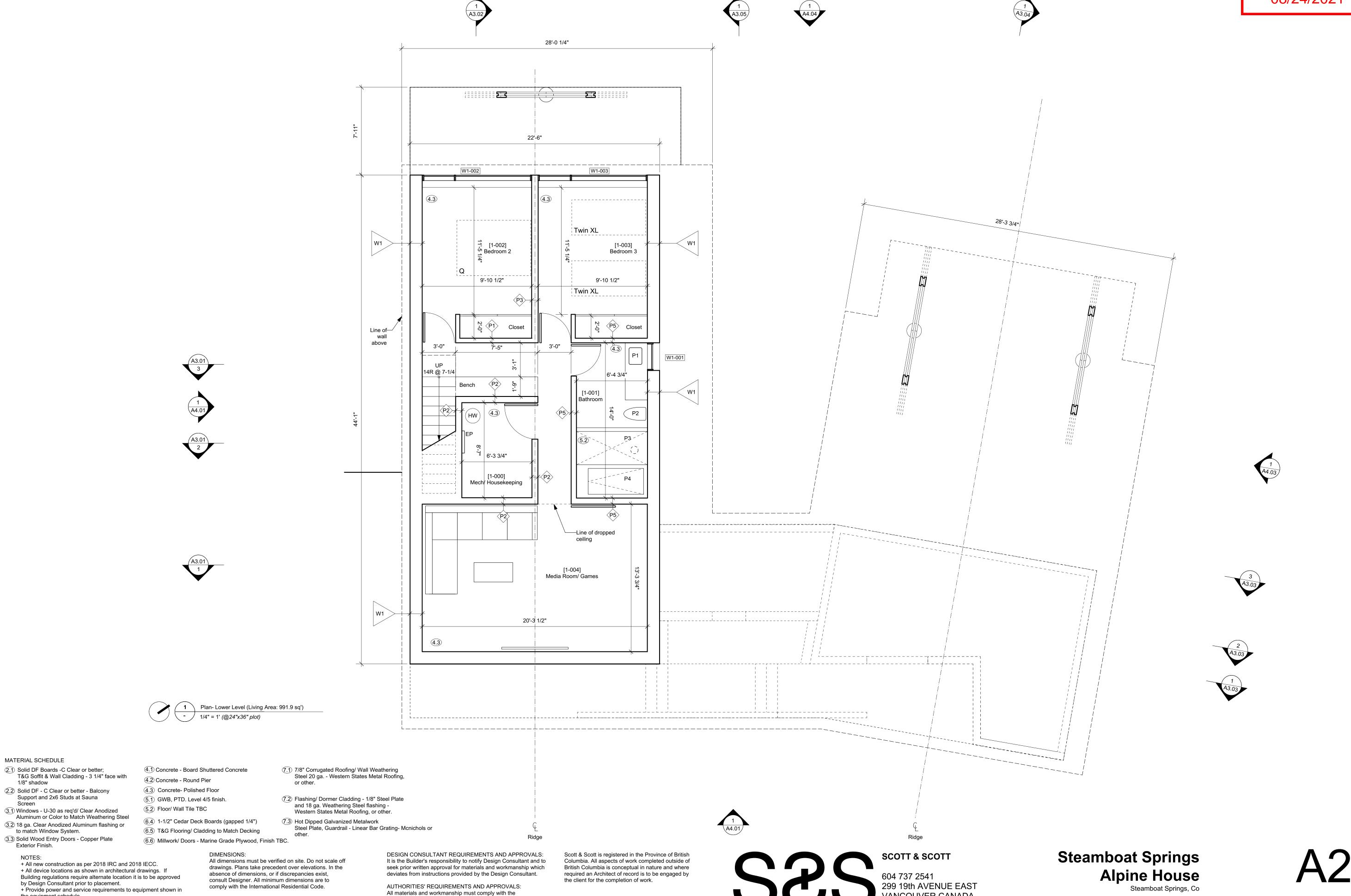
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Steamboat Springs
Alpine House
Steamboat Springs, Co

C2.00<sub>R1</sub>

**Foundation Plan** 



1/8" shadow

Exterior Finish.

the equipment schedule.

SHOP DRAWINGS:

of the building.

Submit shop drawings to the Design Consultant and Engineer for

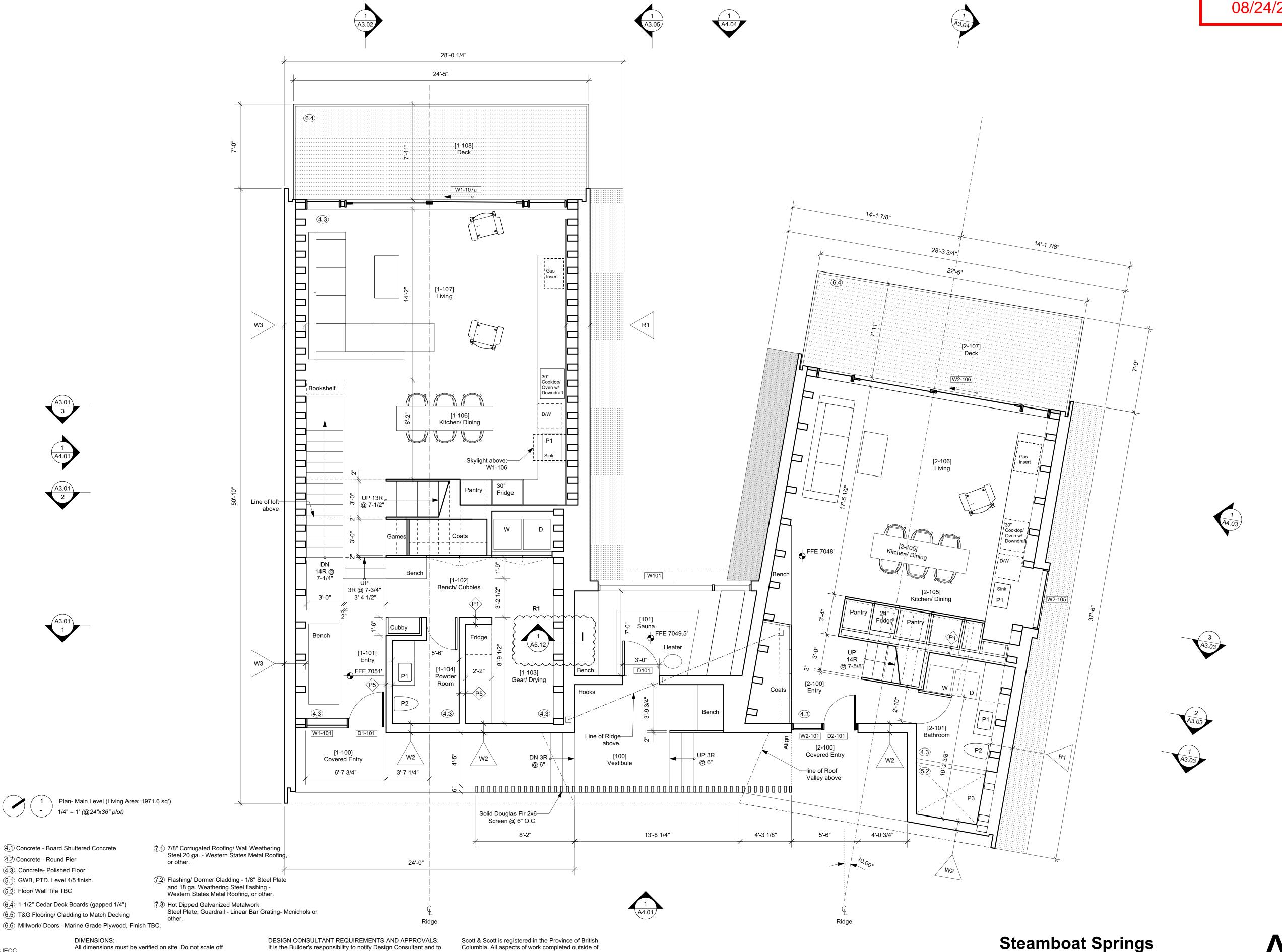
approval prior to manufacture of prefabricated elements

requirements of all authorities having jurisdication over

the work. It is the Builder's responsibility to gain

necessary approval from all relevant Authorities.

Floor Plan - Lower Level



Exterior Finish.

MATERIAL SCHEDULE

1/8" shadow

2.1) Solid DF Boards -C Clear or better; T&G Soffit & Wall Cladding - 3 1/4" face with

(3.1) Windows - U-30 as req'd/ Clear Anodized Aluminum or Color to Match Weathering Steel

3.2 18 ga. Clear Anodized Aluminum flashing or

3.3 Solid Wood Entry Doors - Copper Plate

2.2 Solid DF - C Clear or better - Balcony

Support and 2x6 Studs at Sauna

to match Window System.

+ All new construction as per 2018 IRC and 2018 IECC. + All device locations as shown in architectural drawings. If Building regulations require alternate location it is to be approved by Design Consultant prior to placement. + Provide power and service requirements to equipment shown in the equipment schedule.

drawings. Plans take precedent over elevations. In the absence of dimensions, or if discrepancies exist, consult Designer. All minimum dimensions are to comply with the International Residential Code.

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seek prior written approval for materials and workmanship which deviates from instructions provided by the Design Consultant.

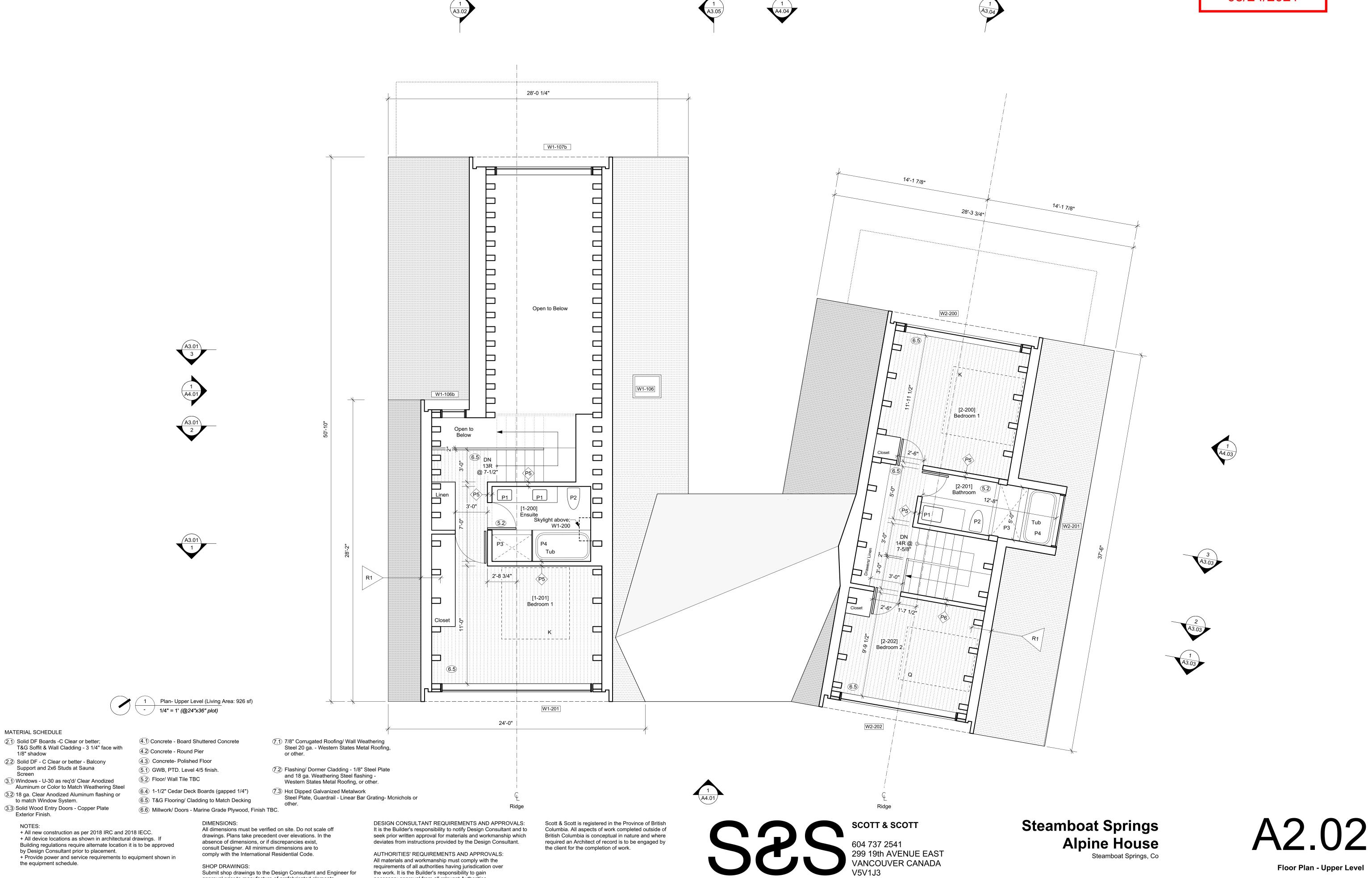
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Steamboat Springs
Alpine House
Steamboat Springs, Co

 $A2.01_{\mathsf{R1}}$ 

Floor Plan - Main Level



the client for the completion of work.

AUTHORITIES' REQUIREMENTS AND APPROVALS:

requirements of all authorities having jurisdication over

All materials and workmanship must comply with the

the work. It is the Builder's responsibility to gain

necessary approval from all relevant Authorities.

MATERIAL SCHEDULE

1/8" shadow

Exterior Finish.

2.2) Solid DF - C Clear or better - Balcony

to match Window System.

the equipment schedule.

Support and 2x6 Studs at Sauna

3.3 Solid Wood Entry Doors - Copper Plate

Building regulations require alternate location it is to be approved by Design Consultant prior to placement.

+ Provide power and service requirements to equipment shown in

consult Designer. All minimum dimensions are to comply with the International Residential Code.

approval prior to manufacture of prefabricated elements

Submit shop drawings to the Design Consultant and Engineer for

SHOP DRAWINGS:

of the building.

23 JUNE 2021

Floor Plan - Upper Level



the client for the completion of work.

AUTHORITIES' REQUIREMENTS AND APPROVALS:

requirements of all authorities having jurisdication over

All materials and workmanship must comply with the

the work. It is the Builder's responsibility to gain

necessary approval from all relevant Authorities.

MATERIAL SCHEDULE

1/8" shadow

Exterior Finish.

2.1) Solid DF Boards -C Clear or better; T&G Soffit & Wall Cladding - 3 1/4" face with

3.1) Windows - U-30 as req'd/ Clear Anodized Aluminum or Color to Match Weathering Steel

3.2 18 ga. Clear Anodized Aluminum flashing or

Building regulations require alternate location it is to be approved by Design Consultant prior to placement.

+ Provide power and service requirements to equipment shown in

consult Designer. All minimum dimensions are to comply with the International Residential Code.

of the building.

SHOP DRAWINGS:
Submit shop drawings to the Design Consultant and Engineer for

approval prior to manufacture of prefabricated elements

2.2) Solid DF - C Clear or better - Balcony

to match Window System.

the equipment schedule.

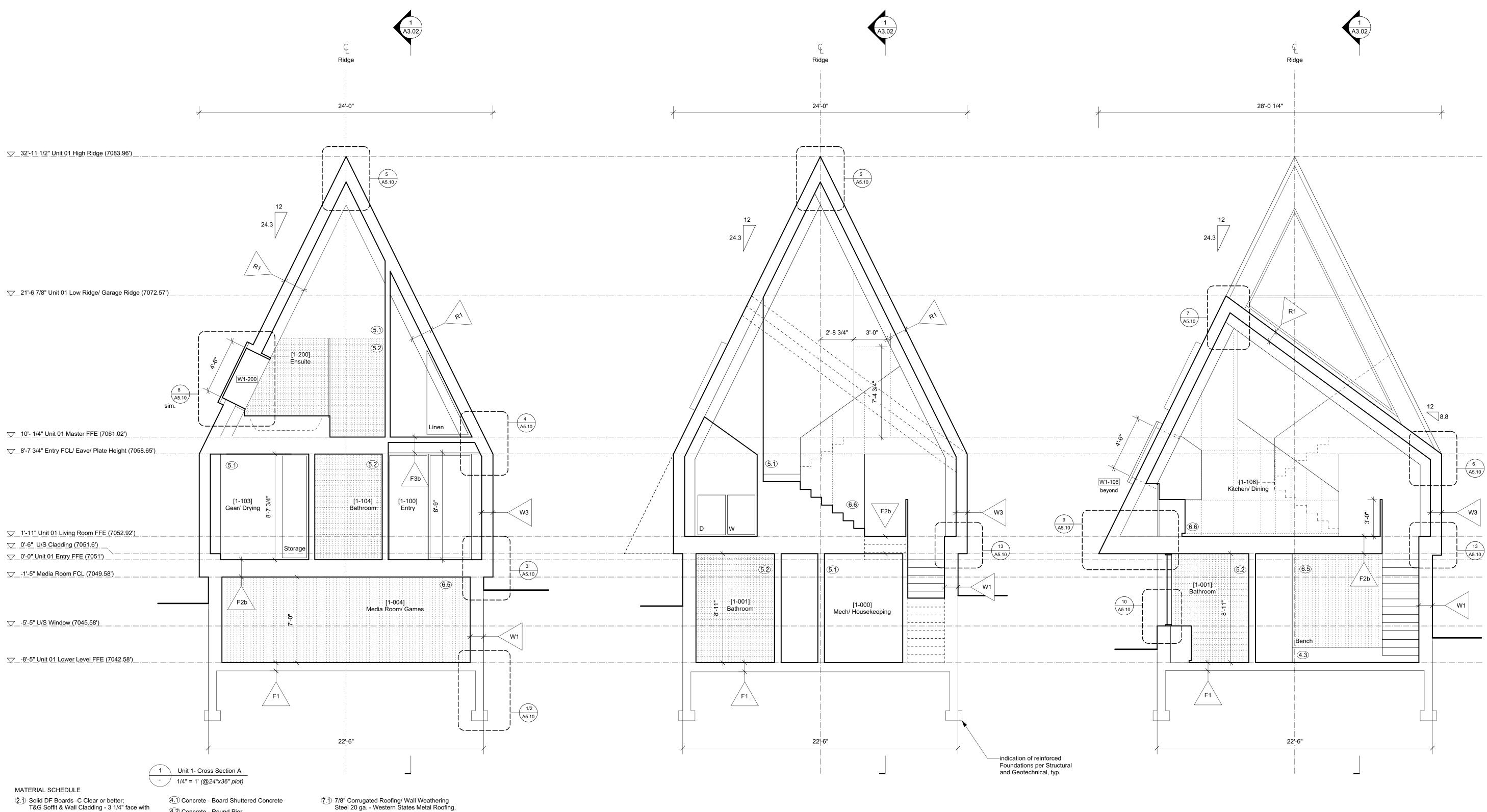
Support and 2x6 Studs at Sauna

3.3 Solid Wood Entry Doors - Copper Plate

A2.03

23 JUNE 2021

Roof Plan



- ②.1) Solid DF Boards -C Clear or better; T&G Soffit & Wall Cladding 3 1/4" face with 1/8" shadow
- 2.2 Solid DF C Clear or better Balcony Support and 2x6 Studs at Sauna
- 3.1) Windows U-30 as req'd/ Clear Anodized Aluminum or Color to Match Weathering Steel 3.2 18 ga. Clear Anodized Aluminum flashing or
- to match Window System. 3.3 Solid Wood Entry Doors - Copper Plate Exterior Finish.
- NOTES: + All new construction as per 2018 IRC and 2018 IECC. + All device locations as shown in architectural drawings. If
- Building regulations require alternate location it is to be approved by Design Consultant prior to placement. + Provide power and service requirements to equipment shown in the equipment schedule.
- 4.2 Concrete Round Pier
- 4.3 Concrete- Polished Floor (5.1) GWB, PTD. Level 4/5 finish.
- (5.2) Floor/ Wall Tile TBC
- 6.4) 1-1/2" Cedar Deck Boards (gapped 1/4")
- 6.5) T&G Flooring/ Cladding to Match Decking
- 6.6 Millwork/ Doors Marine Grade Plywood, Finish TBC. DIMENSIONS: All dimensions must be verified on site. Do not scale off
  - drawings. Plans take precedent over elevations. In the absence of dimensions, or if discrepancies exist, consult Designer. All minimum dimensions are to comply with the International Residential Code.
  - SHOP DRAWINGS: Submit shop drawings to the Design Consultant and Engineer for approval prior to manufacture of prefabricated elements of the building.

7.2) Flashing/ Dormer Cladding - 1/8" Steel Plate and 18 ga. Weathering Steel flashing - Western States Metal Roofing, or other.

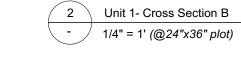
Steel Plate, Guardrail - Linear Bar Grating- Mcnichols or

7.3 Hot Dipped Galvanized Metalwork

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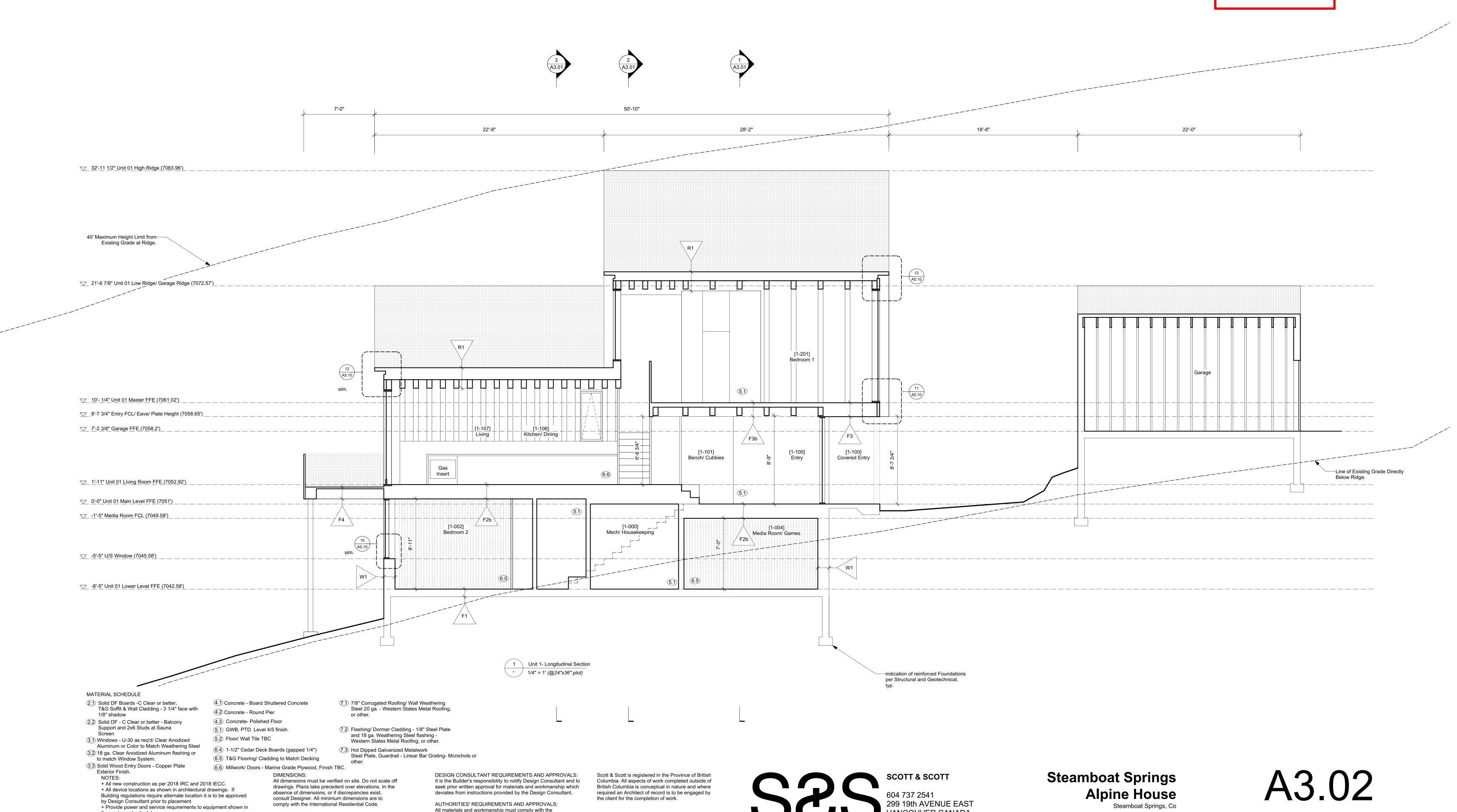
SCOTT & SCOTT

3 Unit 1- Cross Section C

- 1/4" = 1' (@24"x36" plot)

Steamboat Springs
Alpine House
Steamboat Springs, Co

A3.01



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the client for the completion of work.

deviates from instructions provided by the Design Consultant.

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requirements of all authorities having jurisdication over

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the work. It is the Builder's responsibility to gain

necessary approval from all relevant Authorities.

absence of dimensions, or if discrepancies exist,

consult Designer. All minimum dimensions are to comply with the International Residential Code.

of the building.

approval prior to manufacture of prefabricated elements

SHOP DRAWINGS:
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Building regulations require alternate location it is to be approved by Design Consultant prior to placement.

+ Provide power and service requirements to equipment shown in

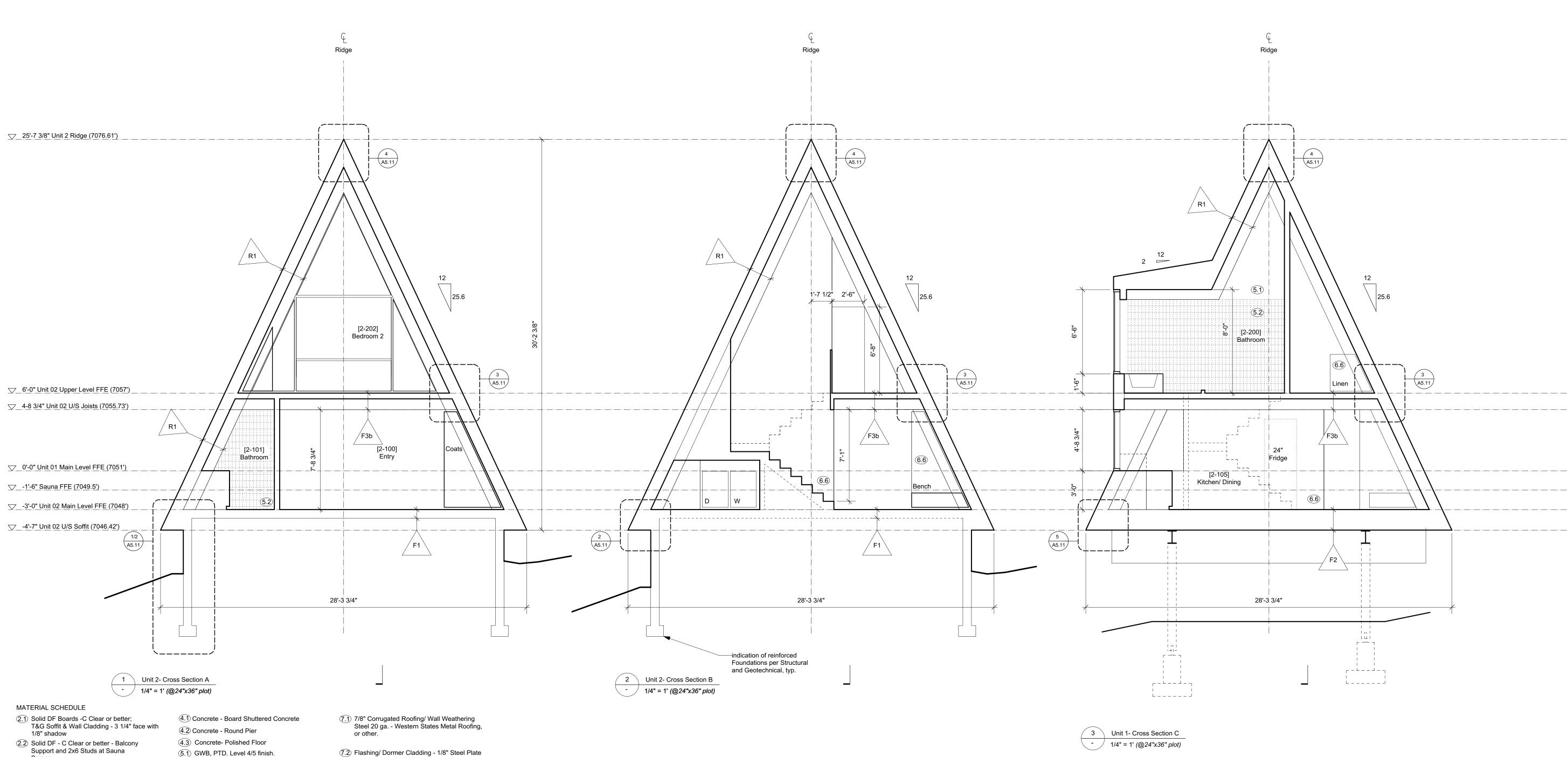
the equipment schedule.

23 JUNE 2021









(3.1) Windows - U-30 as req'd/ Clear Anodized Aluminum or Color to Match Weathering Steel

3.2 18 ga. Clear Anodized Aluminum flashing or to match Window System. 3.3 Solid Wood Entry Doors - Copper Plate

7.2) Flashing/ Dormer Cladding - 1/8" Steel Plate and 18 ga. Weathering Steel flashing -Western States Metal Roofing, or other.

6.4) 1-1/2" Cedar Deck Boards (gapped 1/4") 7.3 Hot Dipped Galvanized Metalwork Steel Plate, Guardrail - Linear Bar Grating- Mcnichols or 6.5) T&G Flooring/ Cladding to Match Decking

(6.6) Millwork/ Doors - Marine Grade Plywood, Finish TBC. Exterior Finish.

(5.2) Floor/ Wall Tile TBC

+ All new construction as per 2018 IRC and 2018 IECC.
+ All device locations as shown in architectural drawings. If Building regulations require alternate location it is to be approved by Design Consultant prior to placement. + Provide power and service requirements to equipment shown in the equipment schedule.

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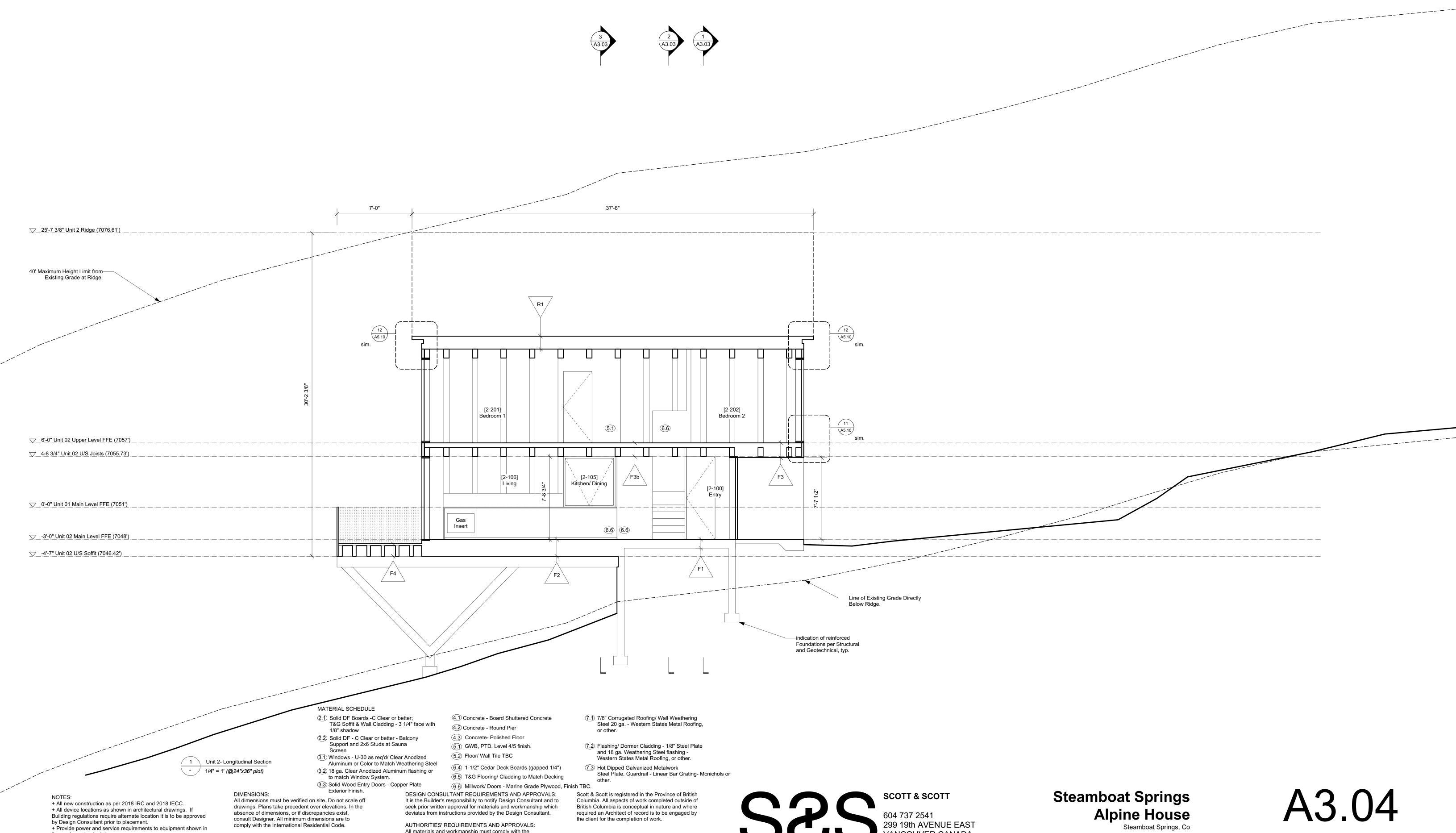
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Alpine House
Steamboat Springs, Co



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of the building.

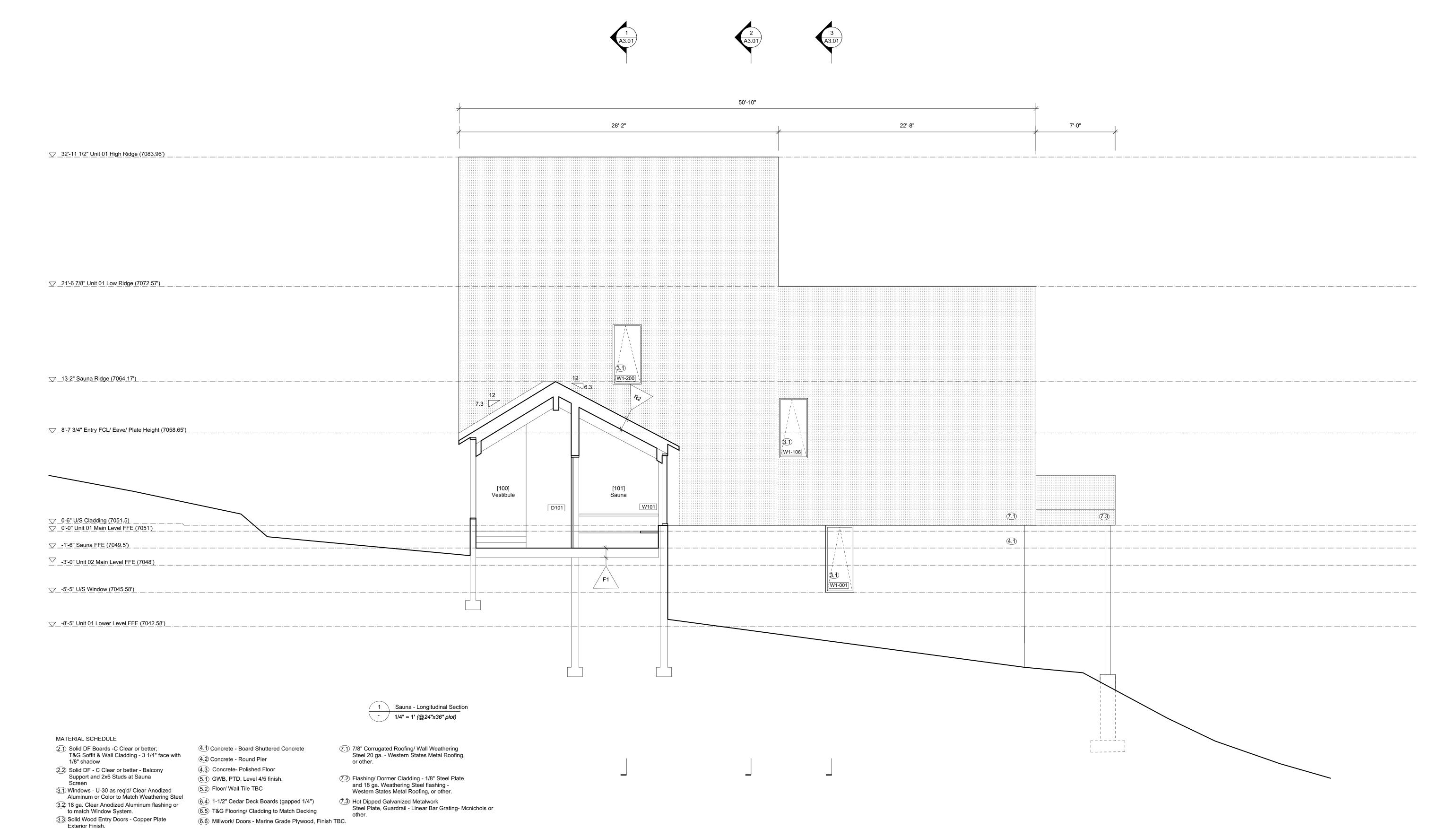
approval prior to manufacture of prefabricated elements

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of the building.

NOTES:

the equipment schedule.

+ All new construction as per 2018 IRC and 2018 IECC.

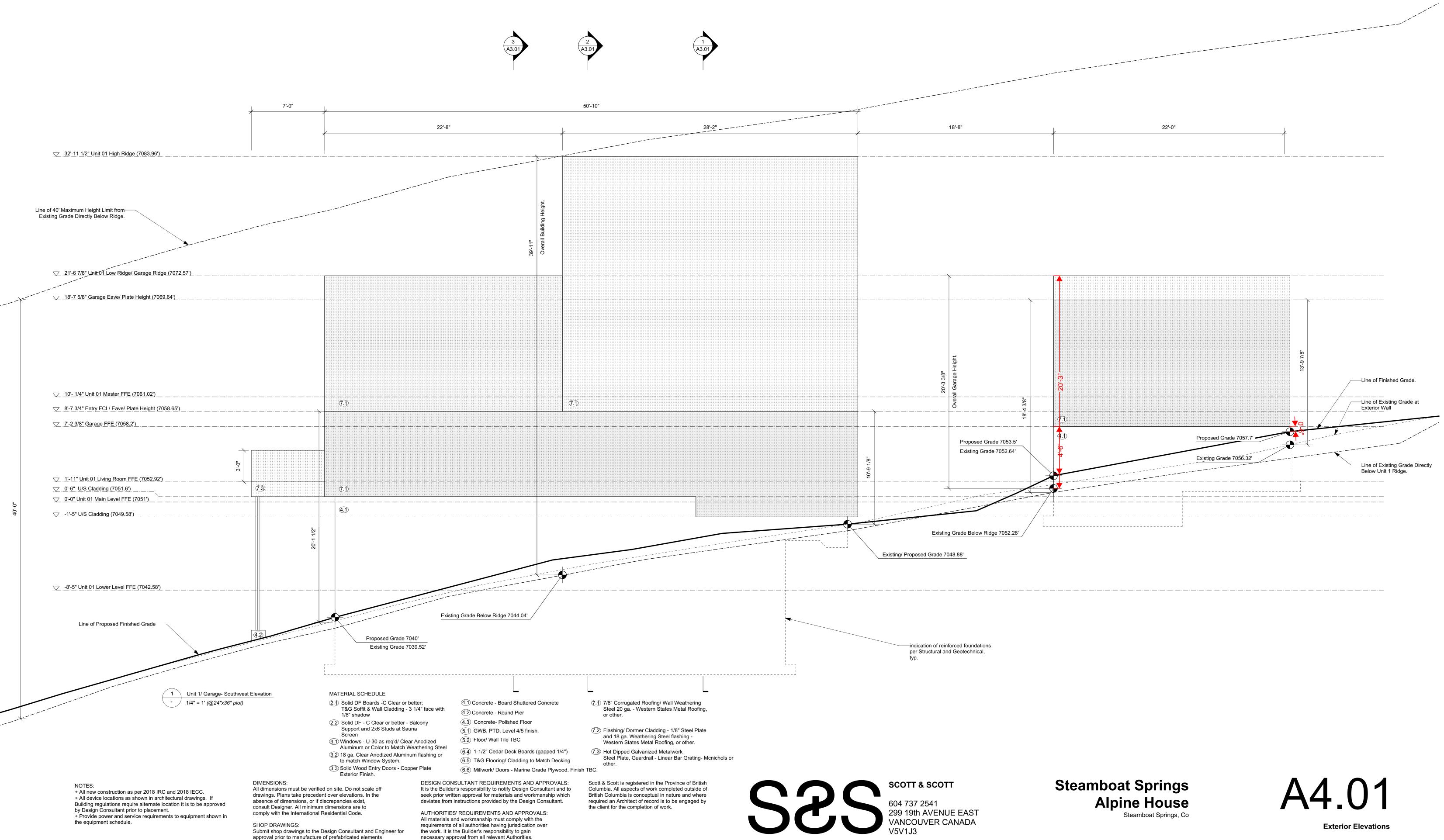
+ All device locations as shown in architectural drawings. If

Building regulations require alternate location it is to be approved by Design Consultant prior to placement.

+ Provide power and service requirements to equipment shown in

A3.05

Steamboat Springs
Alpine House
Steamboat Springs, Co



of the building.



absence of dimensions, or if discrepancies exist,

consult Designer. All minimum dimensions are to

Submit shop drawings to the Design Consultant and Engineer for

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comply with the International Residential Code.

SHOP DRAWINGS:

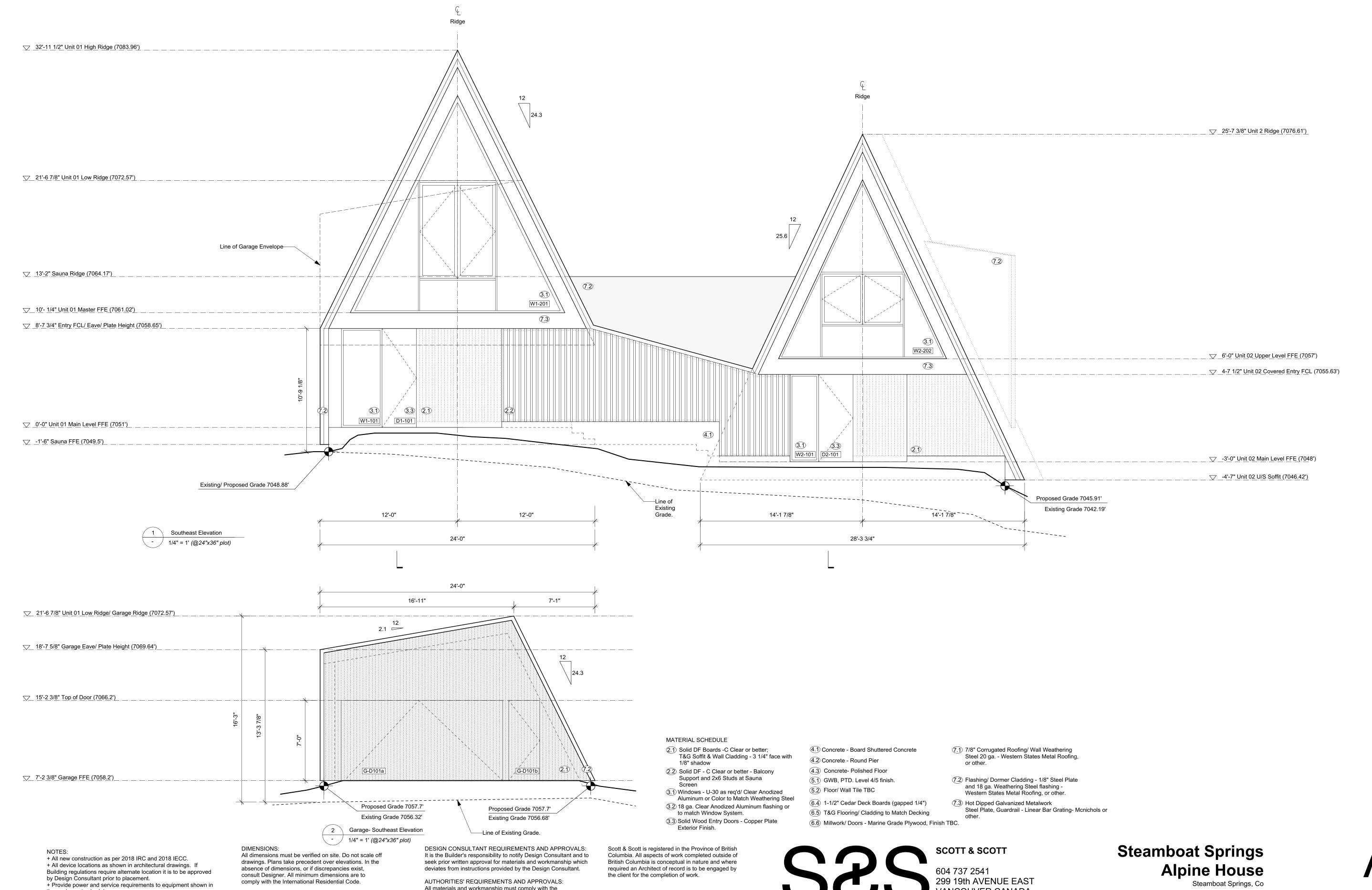
of the building.

Building regulations require alternate location it is to be approved by Design Consultant prior to placement.

+ Provide power and service requirements to equipment shown in

the equipment schedule.





required an Architect of record is to be engaged by

the client for the completion of work.

deviates from instructions provided by the Design Consultant.

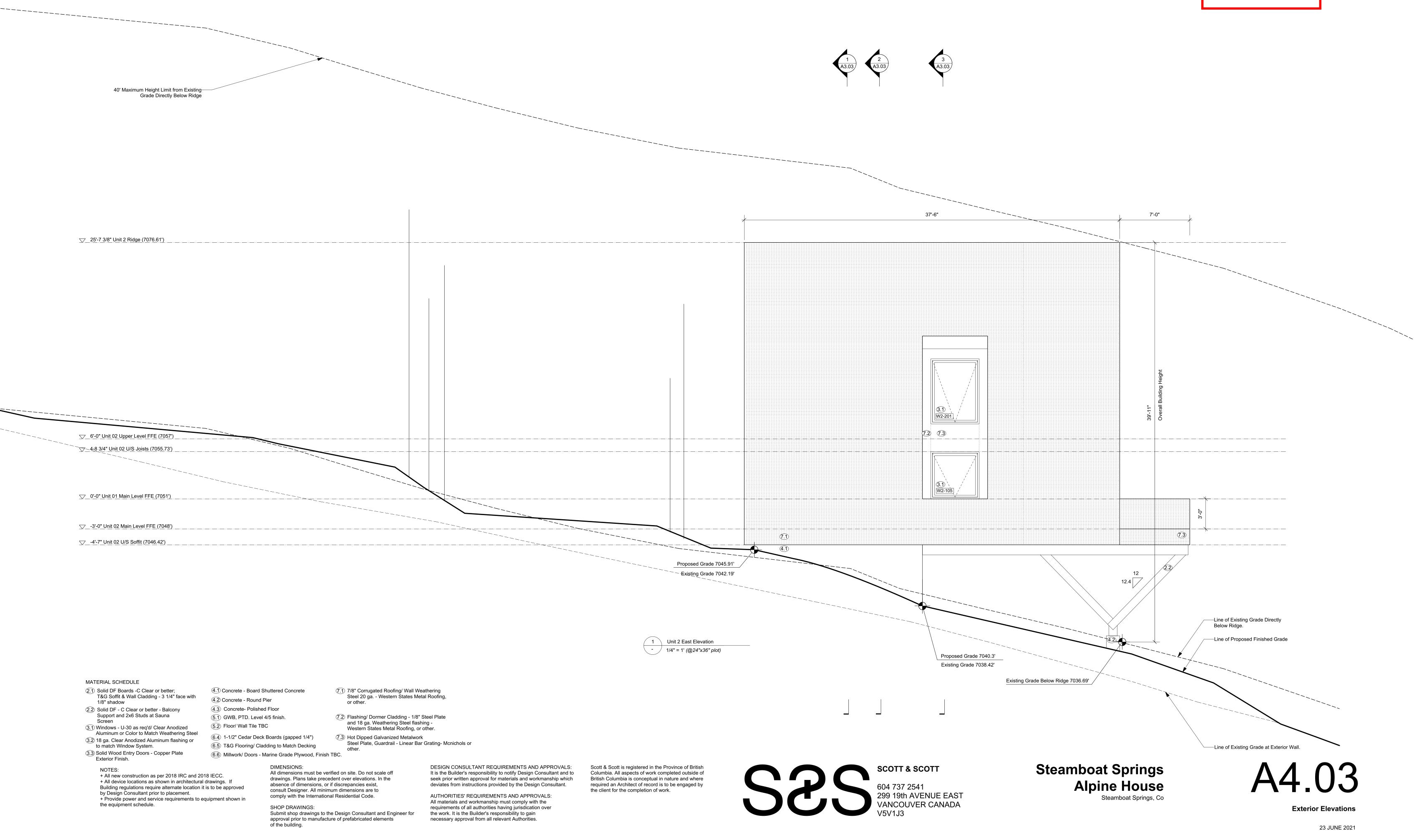
AUTHORITIES' REQUIREMENTS AND APPROVALS:

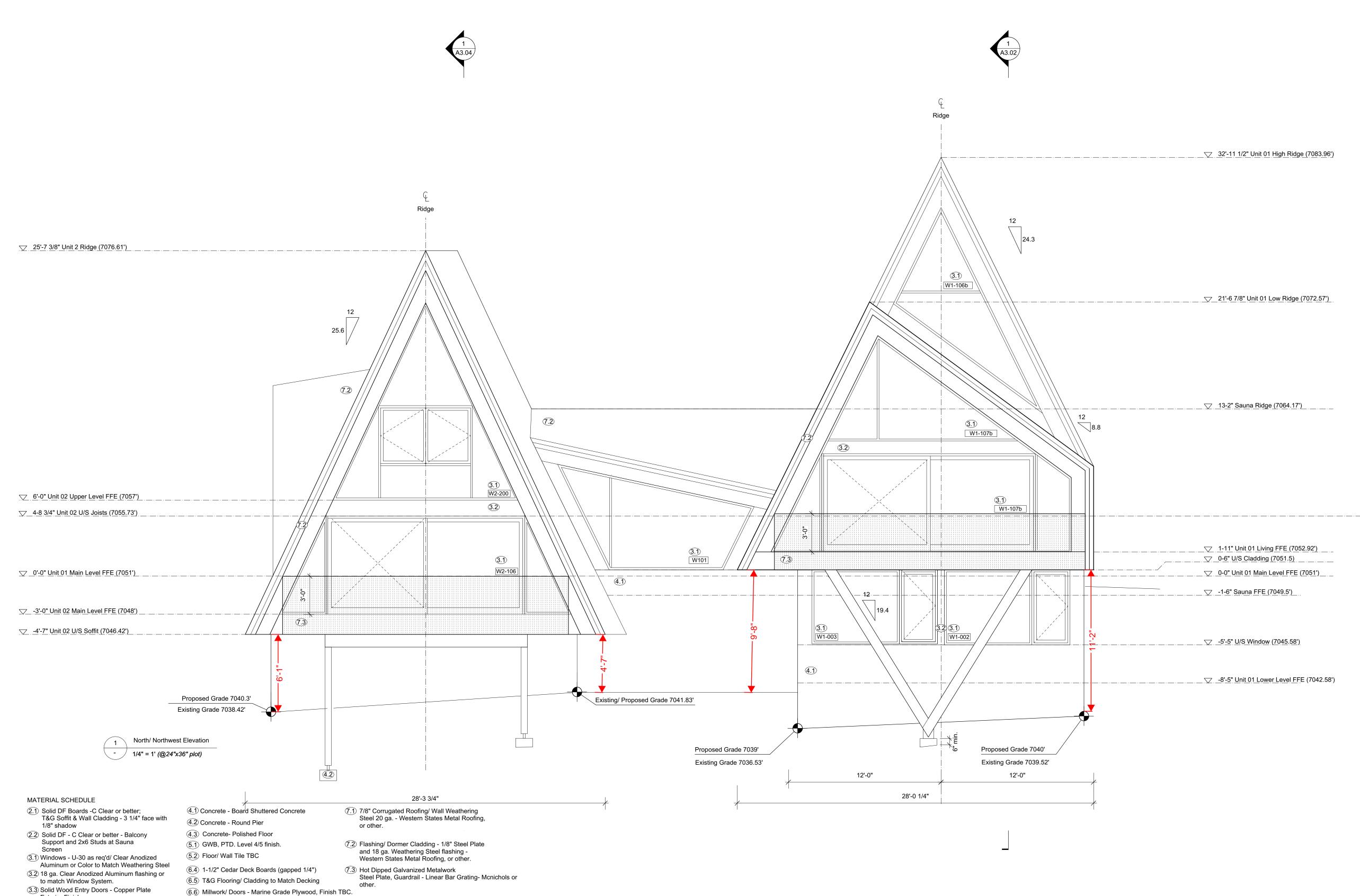
requirements of all authorities having jurisdication over

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requirements of all authorities having jurisdication over

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Exterior Finish.

the equipment schedule.

+ All new construction as per 2018 IRC and 2018 IECC. + All device locations as shown in architectural drawings. If

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NOTES:

DIMENSIONS:

of the building.

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approval prior to manufacture of prefabricated elements

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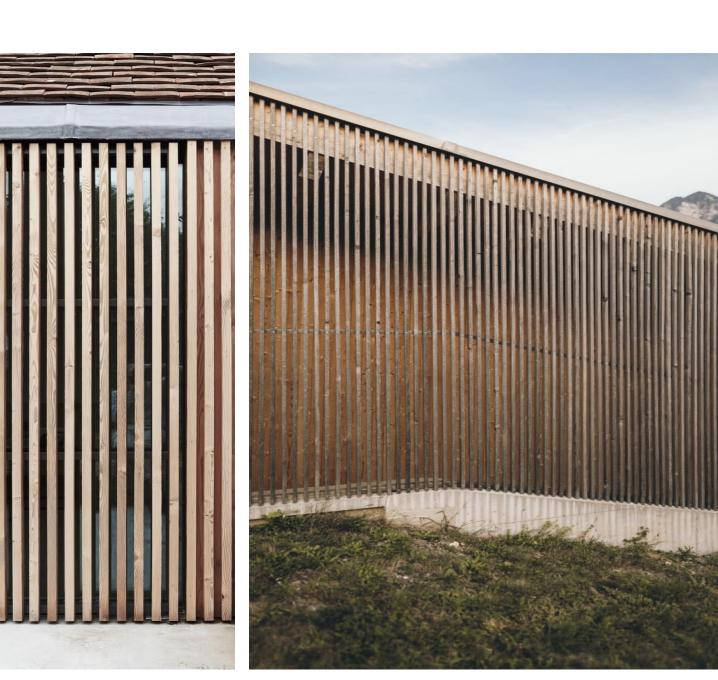
consult Designer. All minimum dimensions are to comply with the International Residential Code.

Steamboat Springs
Alpine House
Steamboat Springs, Co

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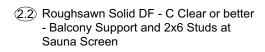
A4.04

Exterior Elevations





















4.1) Concrete- Board Shuttered Concrete.

2.1) DF Boards - C Clear or better T&G Soffit/ Wall Cladding

7.1 7/8" Corrugated Roofing/ Wall Weathering Steel 20 ga. - Western States Metal Roofing, or other.

7.2) Flashing/ Dormer Cladding - 1/8" Steel
Plate and 18 ga. Weathering Steel
flashing - Western States Metal
Roofing, or other.

7.3 Guardrail - Linear Bar GratingMcnichols or other,
Hot Dipped Galvanized Finish.

3.3 Entry Doors - Copper Plate

NOTES: + All new construction as per 2018 IRC and 2018 IECC.
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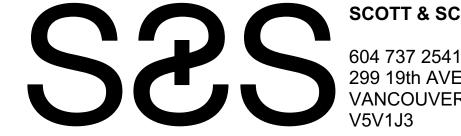
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Steamboat Springs
Alpine House
Steamboat Springs, Co

A4.05

**Exterior Materials** 

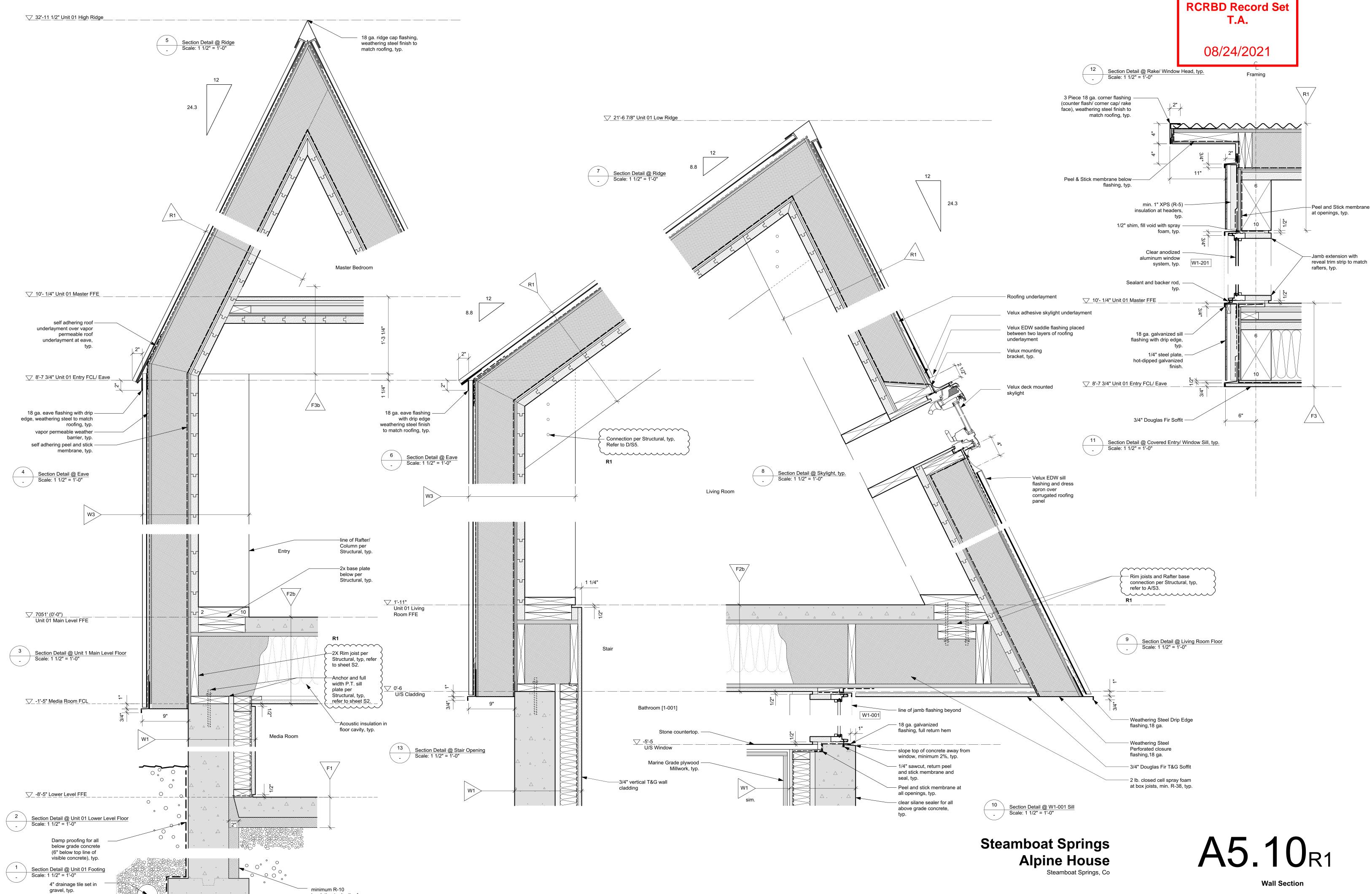




Steamboat Springs
Alpine House
Steamboat Springs, Co

A4.06

Exterior Street View



insulation to depth of

footing, typ.

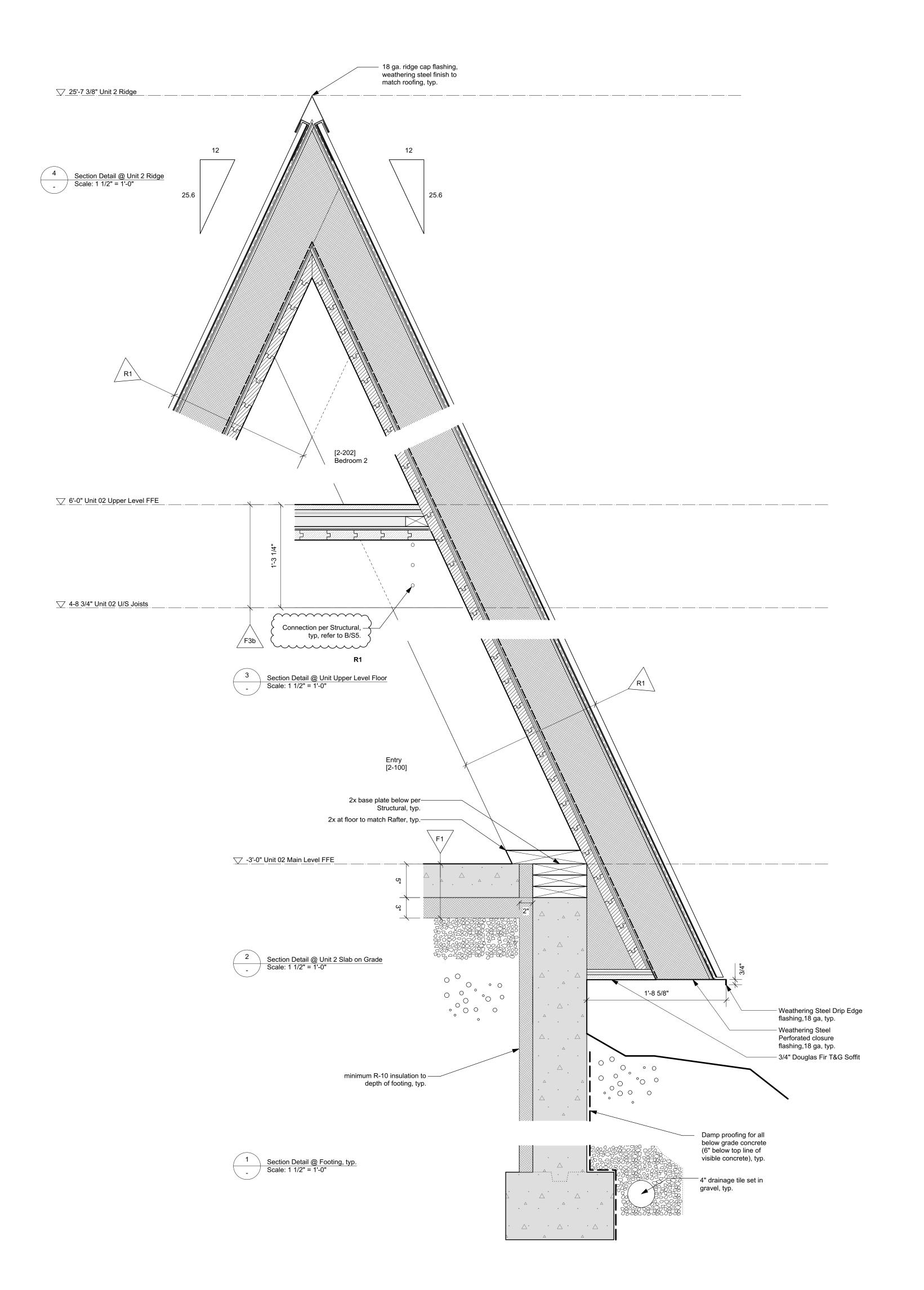
Footing depth per Strucutral and -

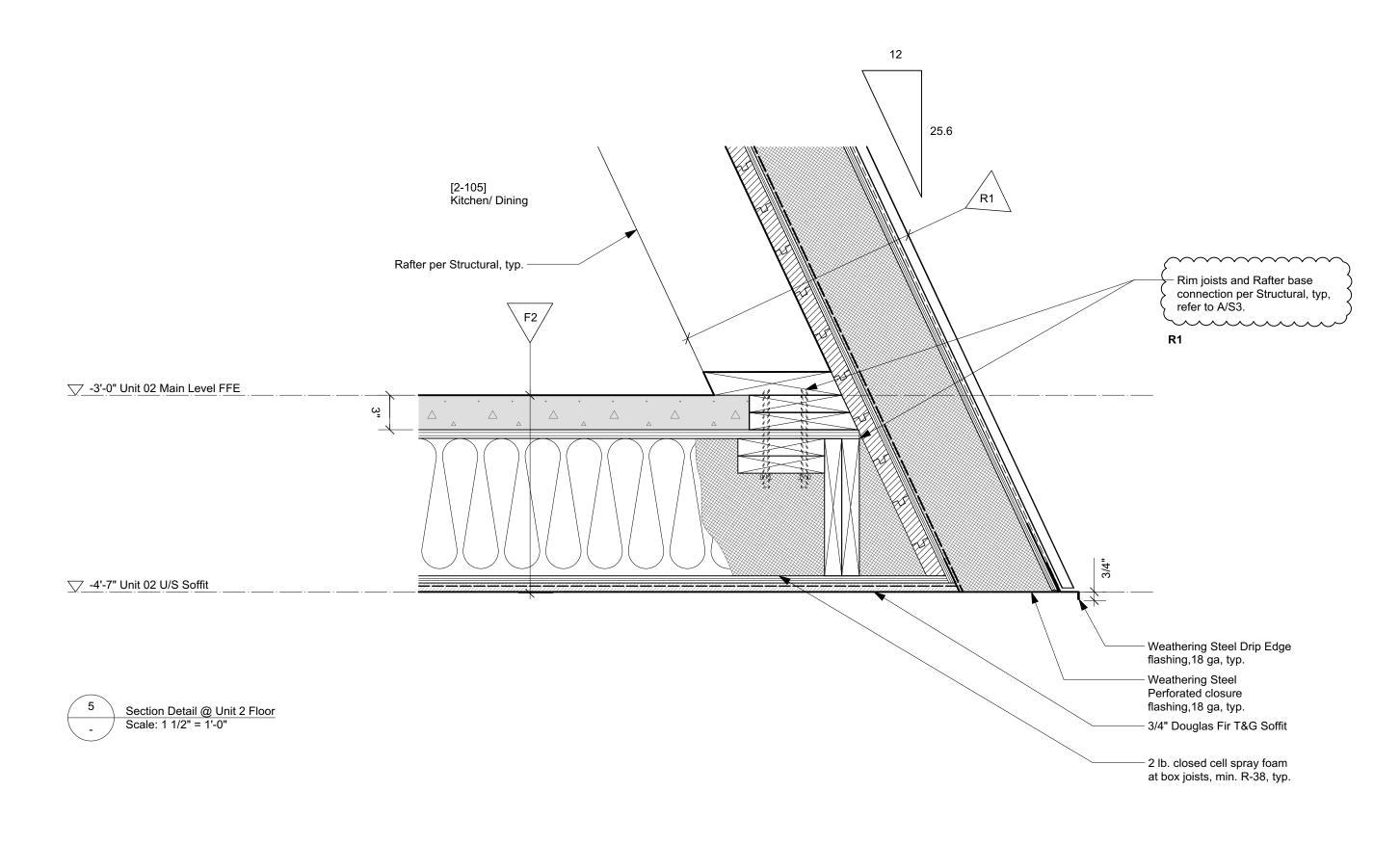
Geotechnical requirements, typ.

27 JULY 2021

RCRBD Record Set T.A.

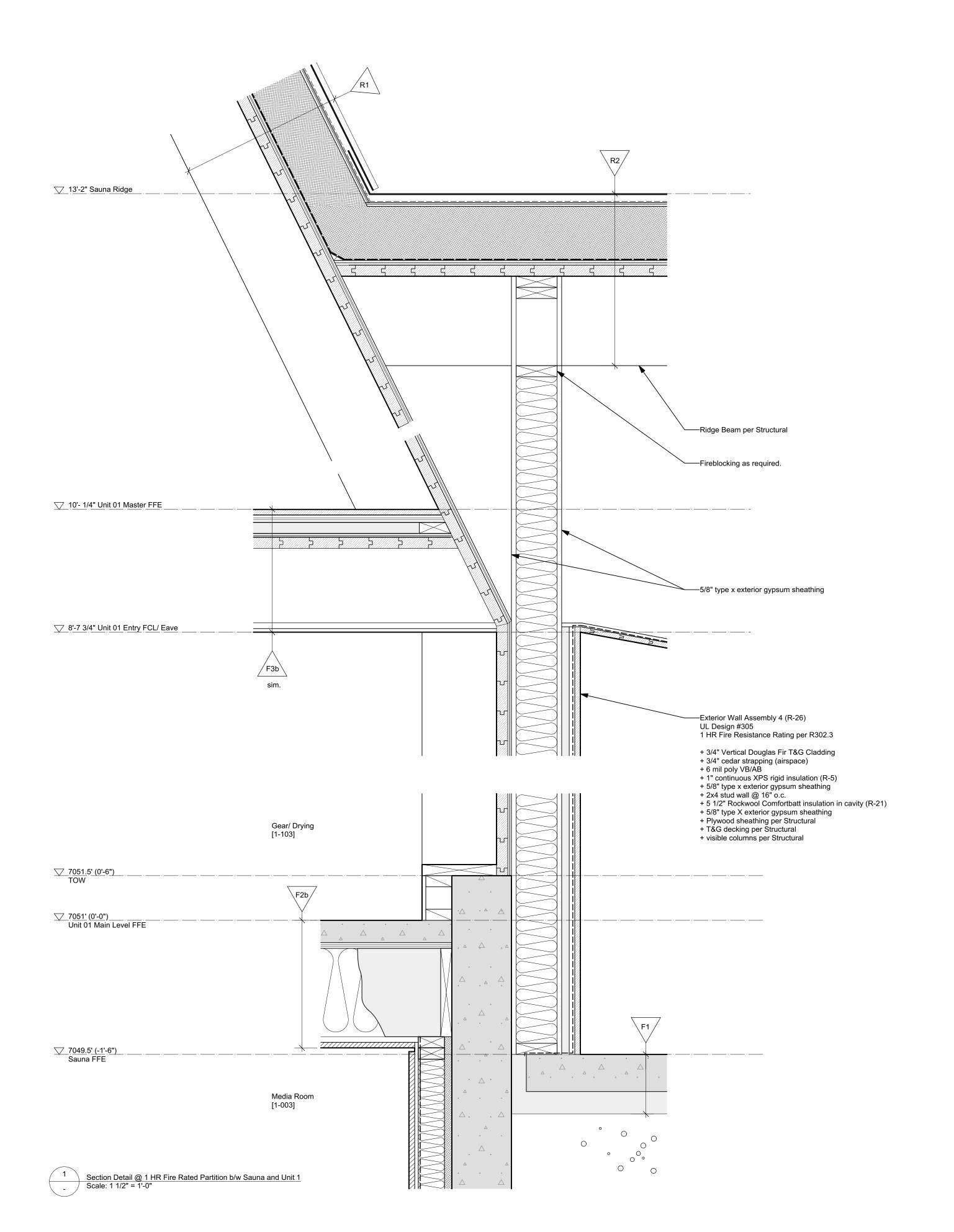
08/24/2021





Steamboat Springs
Alpine House
Steamboat Springs, Co

A5.11<sub>R1</sub>



RCRBD Record Set T.A.

08/24/2021

GA FILE NO. WP 3605	GENERIC	1 HOUR FIRE		30 to 34 STC SOUND	
GYPSUM WALLBOARD, WOOD STUDS		FIRE		300110	
One layer %" type X plain or predecorated gy backing board, or gypsum veneer base applie 2 x 4 wood studs 16" o.c. with 6d coated nails o.c. Joints of square edge, bevel edge or pred Joints staggered 16" on opposite sides. (LOAD-I	d parallel or at right angles to each side of s, 17/6" long, 0.0915" shank, 1/4" heads, 7" decorated wallboard may be left exposed.				
		Approx. Weight: Fire Test:	UL R13 UL R27 UL R35	319-4, -6, 6-17-52; 717-39, 1-20-66; 501-52, 3-15-66, sign U305;	
				esign W301 -8, 2-4-64	

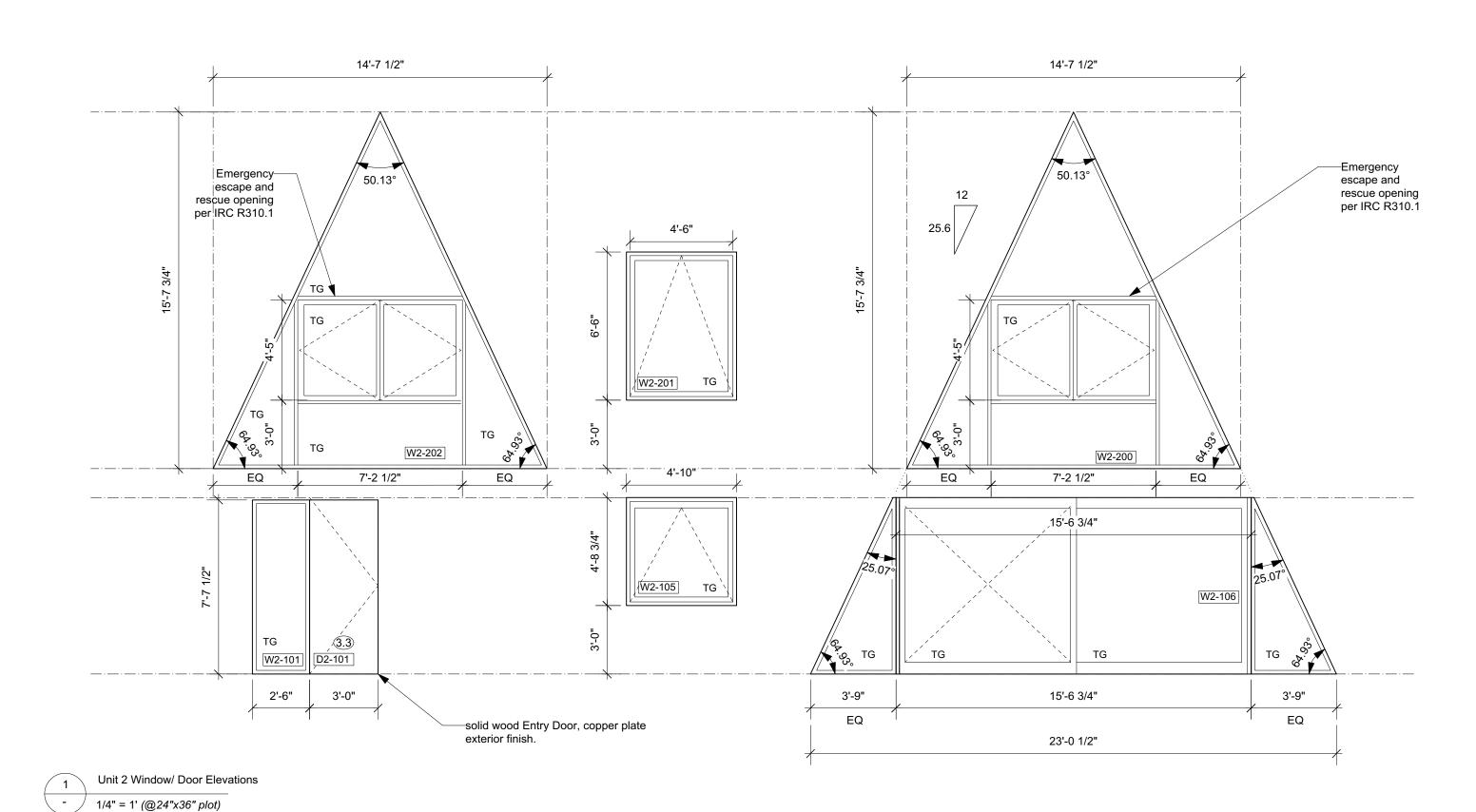
Steamboat Springs
Alpine House
Steamboat Springs, Co

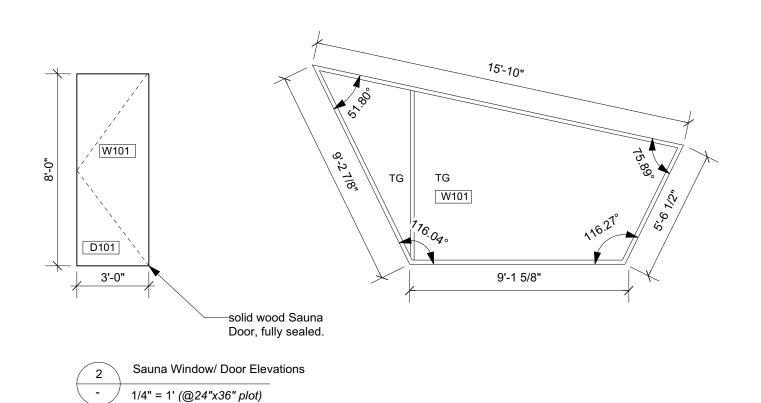
A5.12

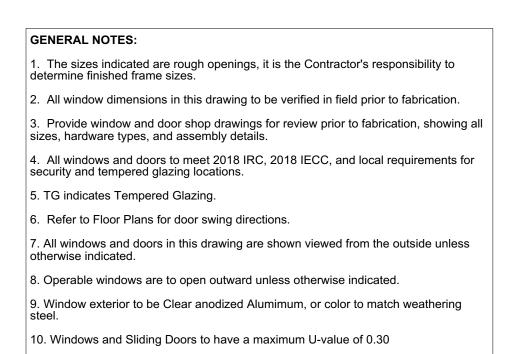
07 1111 1/ 000

**Wall Section** 

27 JULY 2021







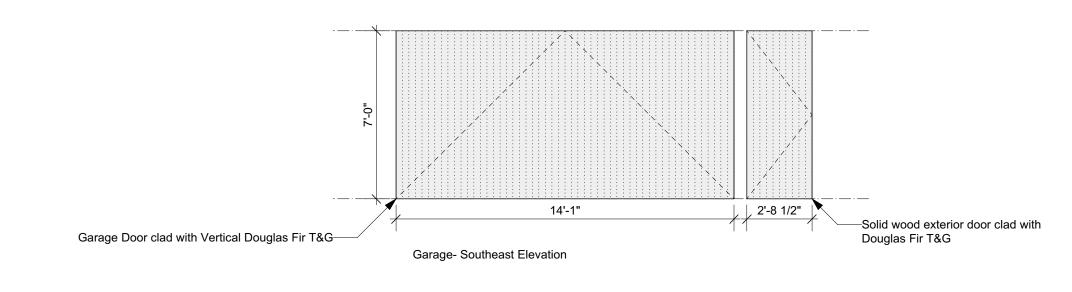
11. Skylights to have a maxium U-value of 0.55

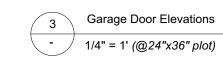
NOTES:

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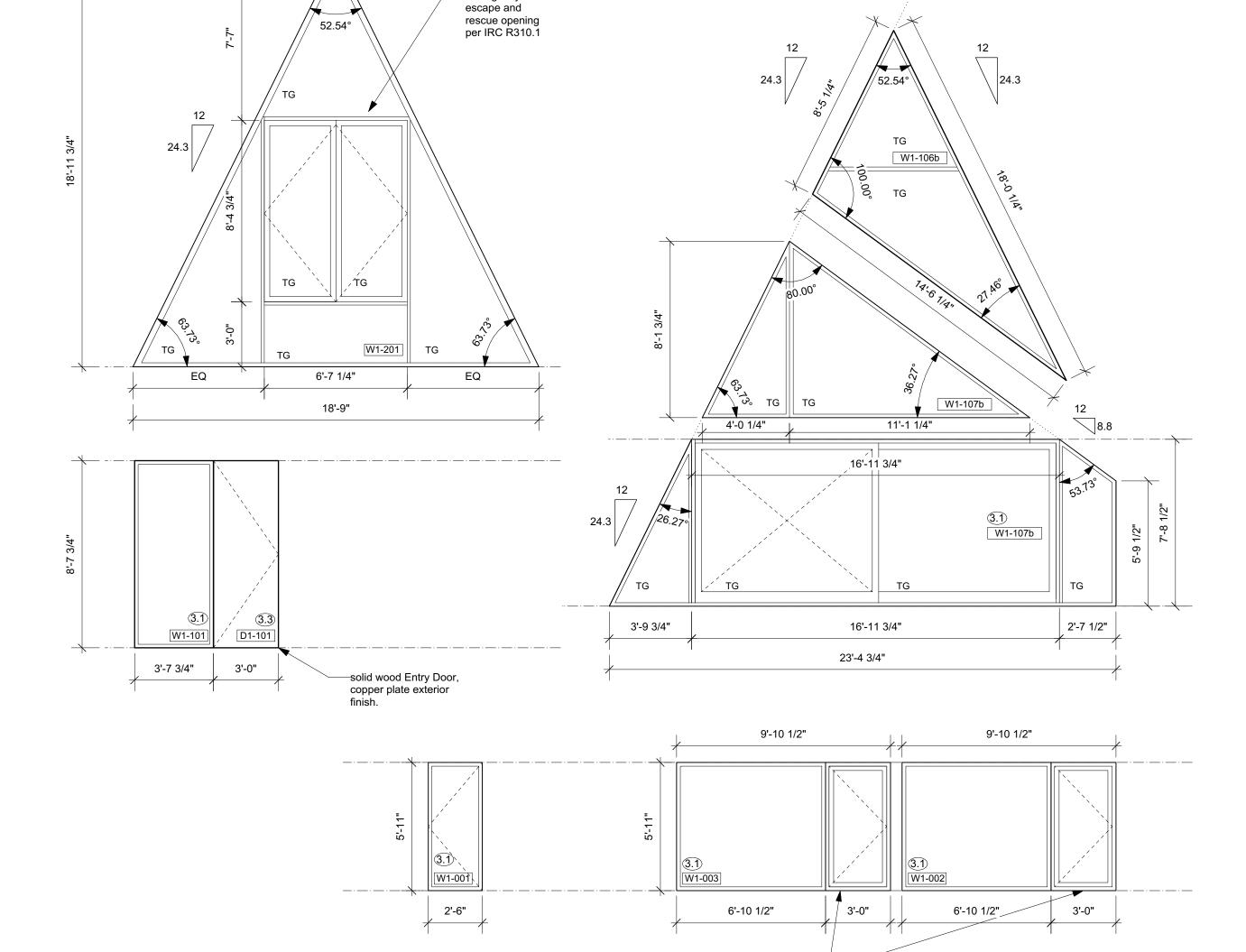
DIMENSIONS:
All dimensions must be verified on site. Do not scale off drawings. Plans take precedent over elevations. In the absence of dimensions, or if discrepancies exist, consult Designer. All minimum dimensions are to comply with the International Residential Code.

SHOP DRAWINGS:
Submit shop drawings to the Design Consultant and Engineer for approval prior to manufacture of prefabricated elements of the building.

DESIGN CONSULTANT REQUIREMENTS AND APPROVALS: It is the Builder's responsibility to notify Design Consultant and to seek prior written approval for materials and workmanship which deviates from instructions provided by the Design Consultant.

AUTHORITIES' REQUIREMENTS AND APPROVALS: All materials and workmanship must comply with the requirements of all authorities having jurisdication over the work. It is the Builder's responsibility to gain necessary approval from all relevant Authorities.

Scott & Scott is registered in the Province of British Columbia. All aspects of work completed outside of British Columbia is conceptual in nature and where required an Architect of record is to be engaged by the client for the completion of work.



Deck mounted Velux manual skylight,-

Emergency



4 Unit 1 Window/ Door Elevations

- / 1/4" = 1' (@24"x36" plot)

Steamboat Springs
Alpine House
Steamboat Springs, Co

Emergency escape and rescueopenings per IRC R310.1

A9.00

3. These plans are intended to be in accordance with 2018 IBC and IRC codes. All construction to be in conformance with these codes.

<u>FOUNDATION</u>

1. Foundation designed in accordance with NWCC Site Specific Soils Report with a Maximum allowable soil bearing pressure = 3000 psf, 700 min.

Proper authorization for use of the report or its

recommendations are the responsibility of the owner.

2. We recommend the soils engineer verify during excavation (and before construction of any part of the foundation) that soils types and conditions match those described in the pit log(s) of the above mentioned soils report.

3. Remove topsoils, organic material, and any questionable material below pads and footers. All pads and footings expose to frost must maintain the required 48" frost depth. Minimum

material below pads and footers. All pads and footings exposed to frost must maintain the required 48" frost depth. Minimum pad thickness = 12". The footing elevations of this design are indicated in economical relation to architectural elements. Proper soil bearing and/or the soil report may require lower footings.

4. Drainage and grading details to divert surface drainage at least 10' away from the structure. Do not backfill against any foundation or retaining wall until all supporting floor and slab systems are in place and securely anchored, or other adequate wall support is provided.

5. Where exterior backfill rises above any adjacent floor, use granular free draining backfill from drain tile up. Exterior backfill may be native inorganic material where final grade is below lowest floor (UNO). Before placing finish topsoil, we recommend capping backfill with a Mirafi fabric under 12"—24" of water impermeable material (e.g. clay).

6. Provide 4" diameter perforated PVC draintile in a 12" by 12" gravel envelope at lowest levels of and perimeter of excavation

sloped a minimum of 1/8" per foot to an adequate daylighting drain. Provide cleanouts and screen end. Mirafi or other filter barriers will help prevent drain clogging. Test draintile before and after backfilling.

7. All construction and materials to conform with ACI 318.

8. Reinforcing bar to be deformed 60 ksi steel (per ASTM A-615). Lap all rebar splices and corners 38 bar diameters

minimum.

9. Concrete supplier to provide mixes that replace 20% of portland cement with recycled fly ash from local coal burning power plants.

10. Minimum concrete 28 day compressive strenath = 3500psi

10. Minimum concrete 28 day compressive strength = 3500psi for walls, footers, and pads, and 4000psi for slabs.

11. Concrete cover: Concrete cast against and permanently exposed to earth: footing, pad = 3". Concrete exposed to earth or weather: walls, slabs = 1.5"

12. Consolidate concrete per ACI 309. Cast in place concrete shall be poured continuously so as to prevent cold joints.

13. Provide 1/2" diameter by 10"min anchor bolts at 24" on center with an embedment of 7" to connect framing to foundation (UNO). Anchor bolts to be located not more than 12" from foundation corner (TYP). Use galvanized anchor bolts with pressure treated plates. Finish all concrete wall tops to within 1/8" of specified elevations.

14. Foundation insulation and waterproofing to be specified and

installed in accordance with the above mentioned soils report, IRC, local codes, and accepted construction practice.

15. Do not use foam form systems without approval of Engineer.

16. Provide slab shrinkage reinforcement of 6x6xW1.4 welded wire mesh with 2" laps, or a poly fiber mesh per manufacturer's instructions.17. Slab surfaces to be left free from trowel marks, uniform in

appearance, and with a surface plane tolerance not exceeding 1/8" in 10'0" when tested with a 10' straightedge.

18. Provide 1" deep tooled (or cut) control joints at approximately 10' on center in each direction.

19. Provide 1/2" expansion joint material at all slab to wall,

footing, or column interfaces. Provide a 6 mil poly barrier under all interior slabs for moisture protection and as a bond breaker. Provide an approved hardener and sealer to the surface of all slabs.

20. If foundation is to sit through winter without complete

framing, we recommend the building achieve enough backfill, framing, and floor sheathing to protect foundation bearing soils

from moisture accumulation and frost heave.

Additiona

1. Framing plans show structural requirements only.
Additional members may be required for blocking, nailers and code requirements.

2. Use Douglas Fir or Hem Fir "stud grade" (S4S) 2x4/2x6 at 16"o.c. for all wall studs(UNO). Use DF#2 (S4S) or better for all multi-stud posts, joists, rafters, headers, posts, beams and plates. Sill plates and any other lumber in direct contact with concrete— California Foundation Grade Redwood or Species Group B Pressure Treated Lumber. Use galvanized anchor bolts with pressure treated plates.

3. Glulams (GL)— 24F-V8 manufactured in accordance with AITC 117-84, fb=2400psi. OK to use 24F-V4 for simple span applications only. All Glulams used in exterior applications must be sealed and protected from moisture with an appropriate preservative

appropriate preservative.

4. Laminated Veneer Lumber (LVL)— manufactured in accordance with APA criteria. fb=2600psi.(or X—Beam Equiv.)

5. Timbers— Douglas Fir (DF) Grade specified on plan— #1

Fb>1300psi, #2 Fb>850psi.

6. Exterior Wall Ply— 7/16" OSB APA rated 24/16 min with 8d's @6"oc edge, 12" oc field. Manufactured in conformance with APA PS 1—83. Floor Ply— 3/4" T&G OSB APA rated 24/0 minimum, 8d's @6"oc edge, 10"oc field. Glue to joists. Roof Ply — 5/8" OSB APA rated 40/20 minimum, 8d's @6"oc edge, 12"oc field. OK to use 1 1/2" Zip wall system in lieu of 7/16" OSB. 1 1/2" Zip wall system nailing: 16d sinkers (0.131" dia.) 3"oc Edge and 12"oc Field.

7. Roof Trusses— 85 psf snow load, 24"oc. Truss design and fabrication by others. No drop top gable truss adjacent to scissor truss without approval of Engineer.

8. Rigid insulation decking— 9 1/2" Insulam or equal. Attach with 10 1/2" deck screws @12"oc each way.

Attach with 10 1/2" deck screws @12"oc each way.

9. Maintain 6" clearance between untreated wood or siding and soils at finish grade.

10. 1/2" Sheath 100% all exterior frame. Ply to lap floor

rim, top plates and sill plate.

11. All floor and roof plywood place with 8' dimension perpendicular to framing with end joints staggered.

12. Typical headers unless noted otherwise on plans: All load bearing headers in 2x6 wall (2)2x10; in 2x4 wall

(2)2x10, (UNO).

13. Provide 2 studs under each end of all load bearing beams or headers >38"(UNO). (1)King stud min.(UNO)

14. Multiple stud posts anticipate 2'min wall sections preventing buckling. Verify new adjacent openings with

engineer.

15. Studs removed for doors and windows shall be placed equally at the end of headers, up to (2)king (full height) studs each end.

16. Posts to stack over equal below (UNO). Trusses spanning >18' to stack over studs below (UNO). Provide end joist where studs above do not stack over studs below.
17. Solid block all bearing walls and posts for continuity to foundation.
18. Block all trusses, outlookers, rafters and joists at all

19. Where full height foundation wall parallel to joists, block 1st joist space @24"oc.
20. Wall studs to be continuous from floor to floor, or floor to roof. Balloon frame all gable walls. Provide firestop blocking at 10' max intervals in any wall with studs over 10' height

21. Connect joists to blocking with a minimum of (2)10d nails and connect joists to plate or beam below with a minimum of (3)10d toenails. Connect rim to plate below with 10d toenails @6"oc.

22. Nail exterior wall sole plate to joists below with (3)10d and to blocking, rim or end joist with 10d's @4"oc.
23. Connect all TJI rafters to blocking with (3)10d nails, and to plate or beam below with (4) 10d nails. Provide beveled bearing plate at interior bearing, birdsmouth cut at exterior bearing. Provide beveled web stiffeners at birdsmouth and regular web stiffeners at interior bearing. Strap TJI rafters across ridge with LSTA 18. Connect blocking to plate below with (3)16d toenails minimum. Refer to TJI Specifiers Guide roof details.

24. Connect all 2x rafters to blocking with (3)10d nails, and to plate or beam below with (4) 10d nails. Provide birdsmouth or seat cut bearing at all beams and wall plates

25. Connect common trusses to all bearing points with Simpson H2.5 connectors (UNO). Scissor trusses connect one end with Simpson TC26. Connect to blocking with (3)16d nails 26. Ventilate roof framing per local codes.

27. Nailing, blocking, and all other construction details per 2018 IBC and IRC, such as Table R602.3(1). (UNO)

27. Nating, blocking, and all other construction details por 2018 IBC and IRC, such as Table R602.3(1). (UNO)
28. All connector callouts to be Simpson Strong—Tie or equal by Simpson Strong—Tie Company, Inc. Install per manufacturer's instructions.
29. TJI and MicroLam (ML) are products by Trus Joist

MacMillan. Install per manufacturer's instructions.

30. Steel beams pack out per detail where noted. Where not otherwise noted, provide 2x full width nailer on top with 1/2" Thru bolt at 24"oc staggered side to side of beam web. Where frame wall pocket prevents beam rolling, connect steel beam base to post or beam below with (2)5/8" Lags. Otherwise connect beam to bearing via welded "ears" i.e., flanges similar to Simpson CC. Provide 1/4" fitted web stiffeners at steel beam point loads and bearing points (UNO).

31. If slab on grade is placed on expansive soils (i.e. minimum soil bearing required, see foundation note 1 above) all partition walls framed on slab to be slip jointed per soils

STRUCTURAL STEEL

1. All structural

1. All structural steel shall conform to ASTM specifications A36 except pipe columns which shall conform to ASTM A53 Grade B, and steel tube columns which shall conform to ASTM A500 Grade B. Steel to steel member connection bolts shall be A325 steel and miscellaneous wood embedded items shall be A36 steel.

2. Steel column base plates shall bear evenly to concrete

below via 4000 psi non shrink grout.

3. Minimum welds to be per AISC and/or AWS, but not less than 3\16" continuous fillet unless otherwise noted.

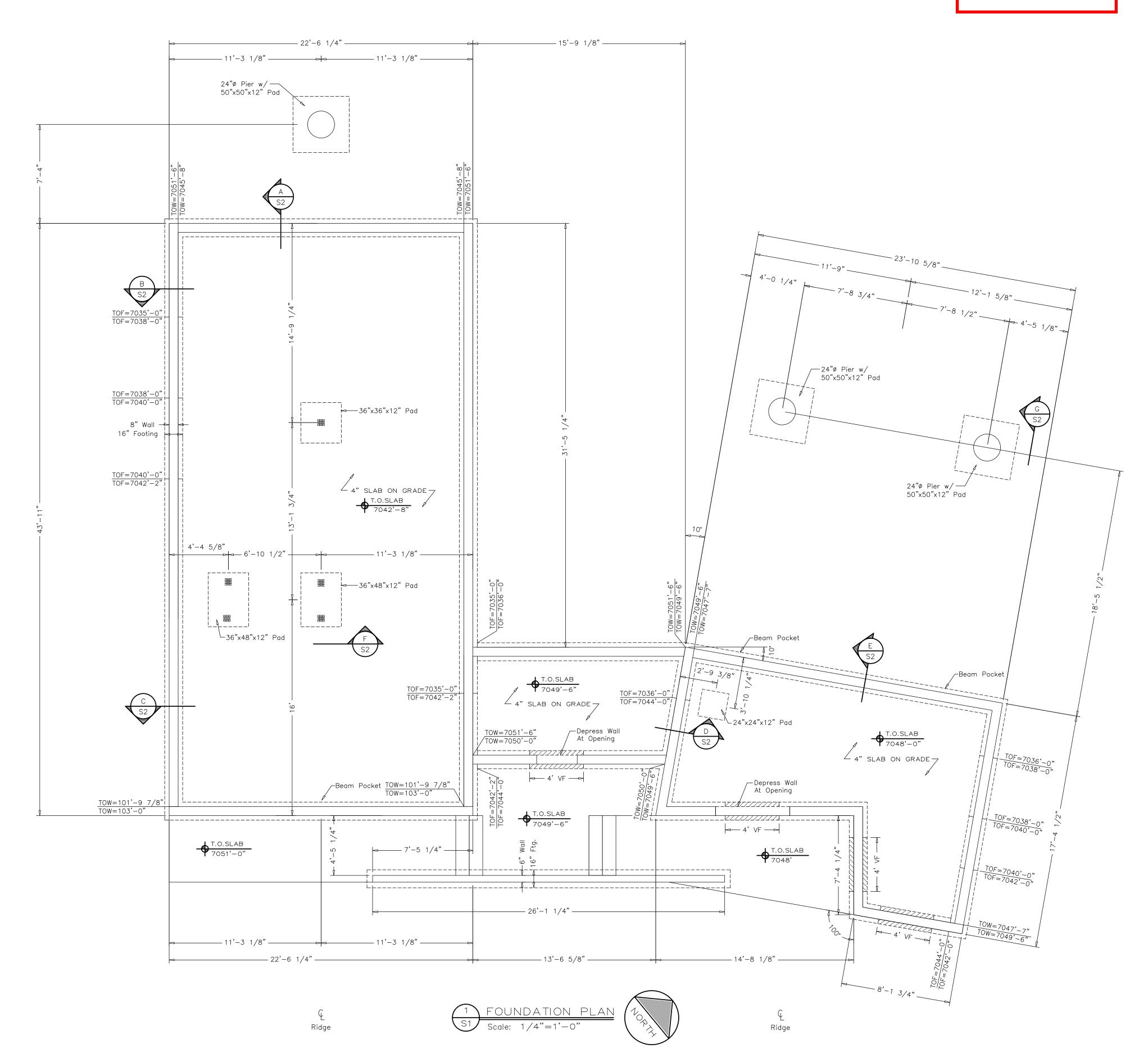
Welding quality control shall be per AWS. All welders shall have evidence of passing the American Welding Society Standard Qualifications Test as detailed in AWS D1.1.

TYPICAL ABBREVIATIONS

BOGB = bottom of grade beam BRG = bearing CL = center line E.E. = each end E.M. = each member E.S. = each side E.W. = each way GL = Glulam HDR = header LVL = Laminated veneer lumber = on center OF = overframe OH = overhang OPP SIM = opposite similar PL = plate PT = pressure treated PSL = parallam R.O. = Rough opening SOG = slab on grade STR = Structural TOBL = top of brick ledge TOF = top of footing TOGB = top of grade beam TOS = top of slab TOSB = top of steel beam TOW = top of wall TYP = Typical UNO = Unless noted otherwise WS = steel web stiffeners

RCRBD Record Set T.A.

08/24/2021





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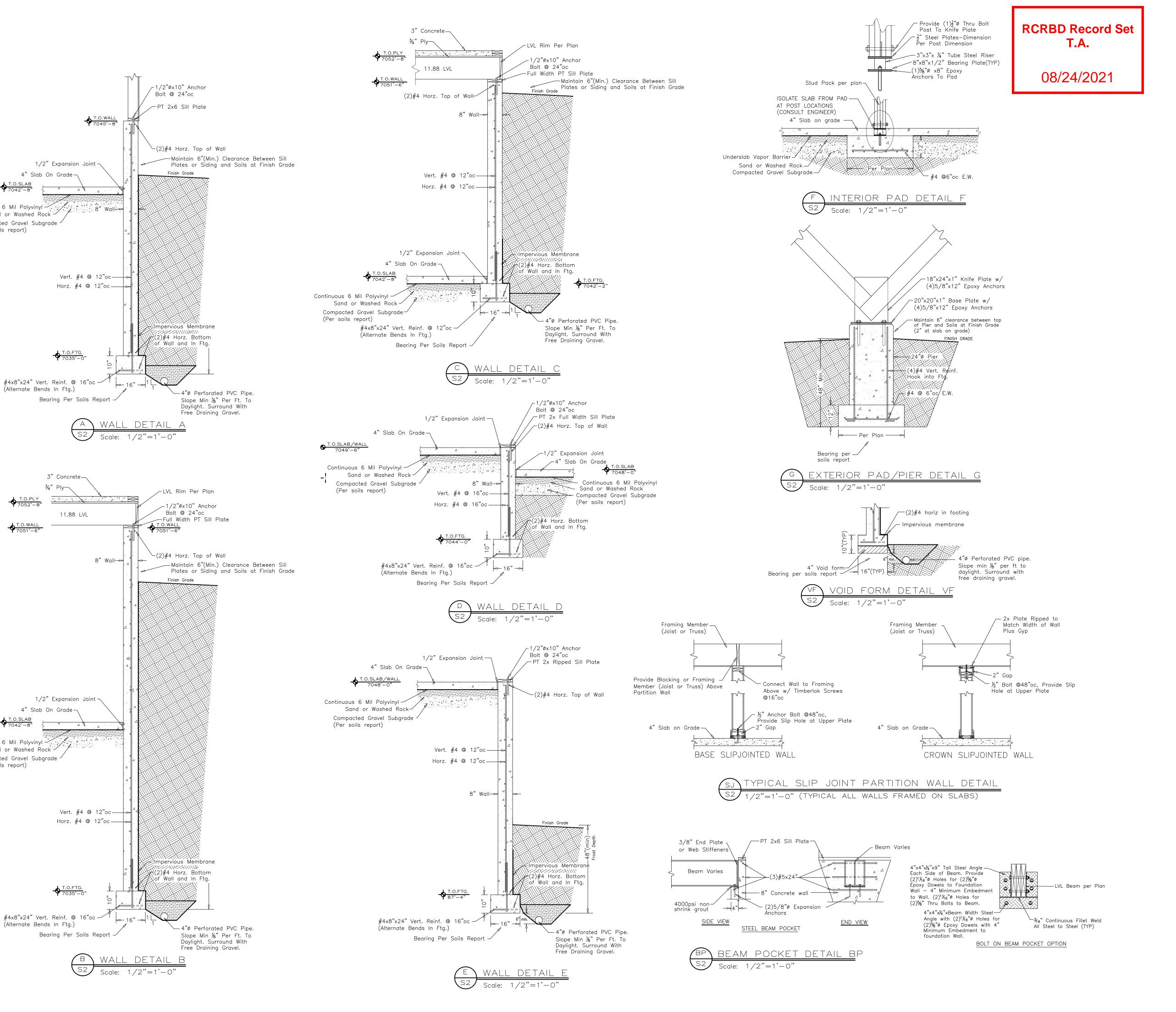
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SOAT SPRINGS ALPINE HOUSE
ENLANE

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Continuous 6 Mil Polyvinyl

Continuous 6 Mil Polyvinyl

(Per soils report)

Sand or Washed Rock

Compacted Gravel Subgrade

(Per soils report)

Sand or Washed Rock Compacted Gravel Subgrade



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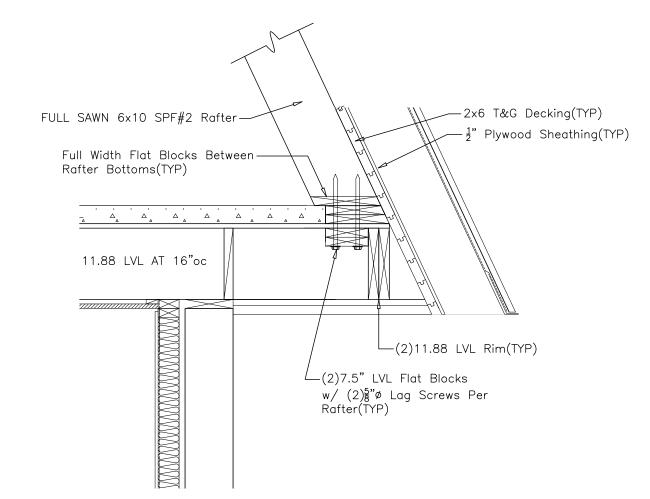
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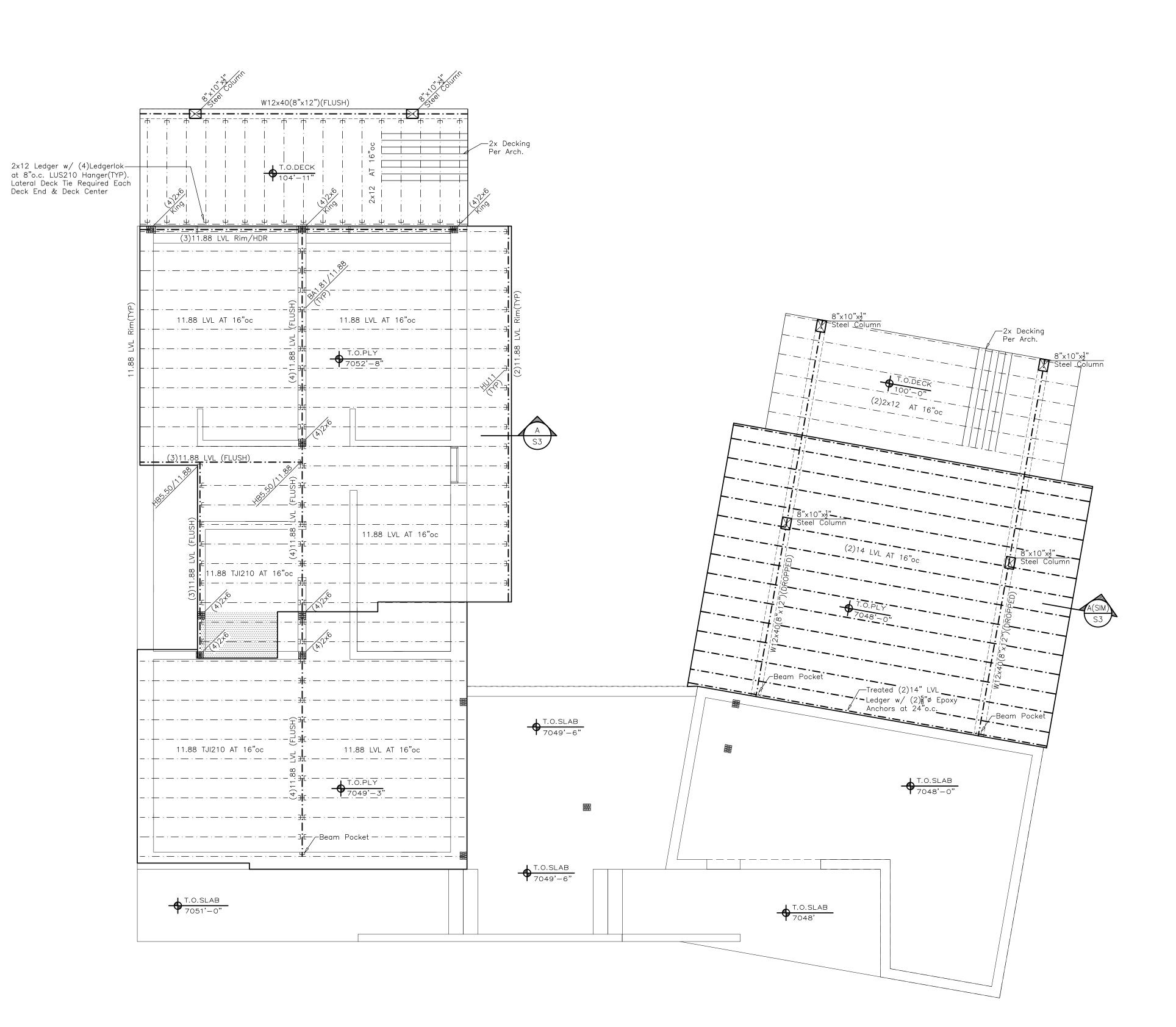
ALPINE STEAMBOAT SPRINGS
1859 RIVER QUEEN LANE
STEAMBOAT SPRINGS, COLORADO

**PAGE** 

#202153 of 5



A RAFTER TO FLOOR DETAIL A
S3 Scale: 3/4"=1'-0"







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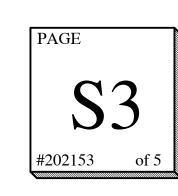
ENGINEERING L 1855 Ski Time Square, Unit E2C Steamboat Springs, CO 80487 P.O. Box 775729 Steamboat Springs, CO 08477 carl@engineeringdesignworks.com PHONE: (970)879-4890

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ISSUE: PERMIT

MAIN FLOOR FRAMING for the proposed:

STEAMBOAT SPRINGS ALPINE HOUSE 1859 RIVER QUEEN LANE STEAMBOAT SPRINGS, COLORADO



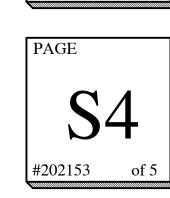


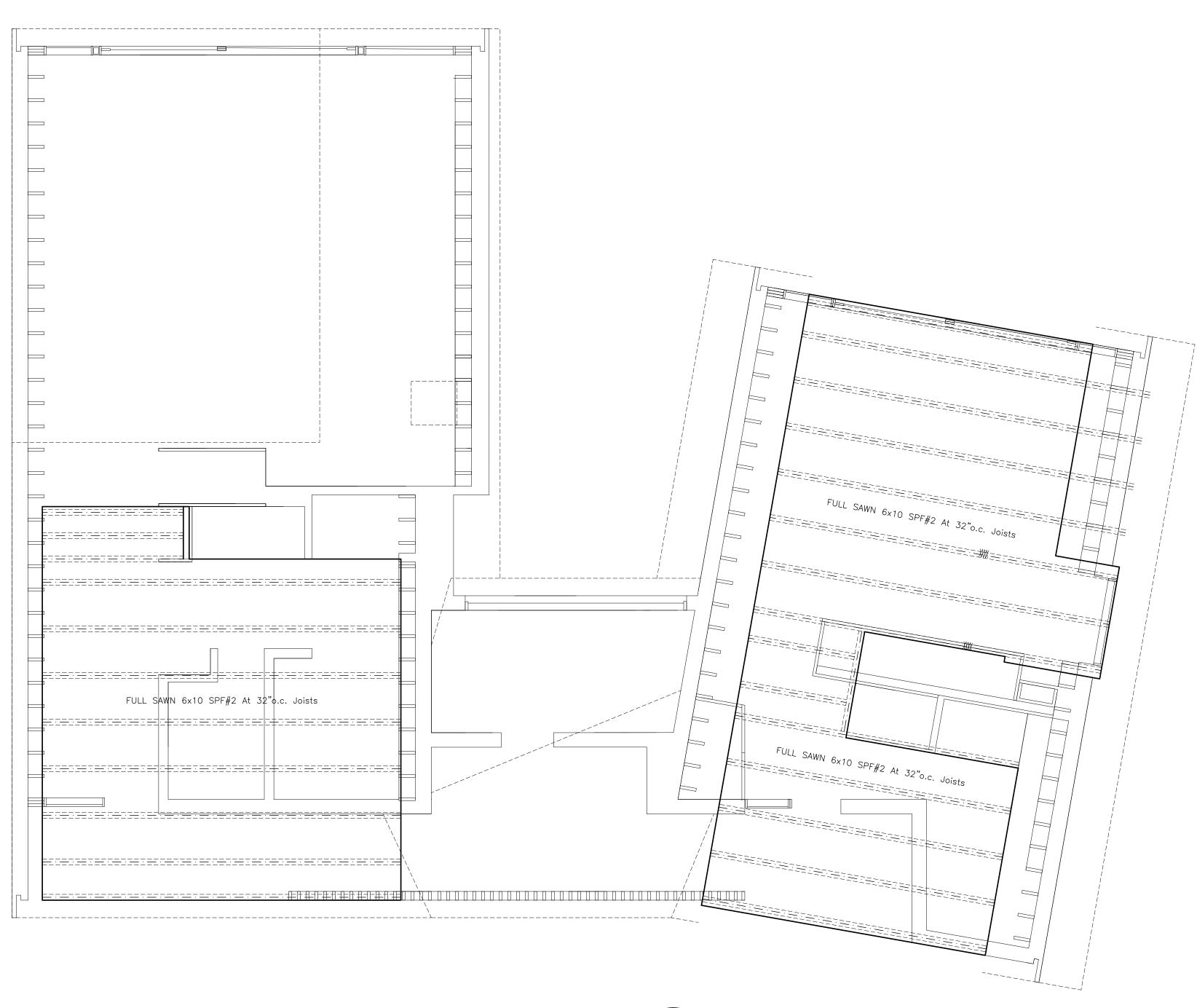
ENGINEERING DESIGNWORKS, 1855 Ski Time Square, Unit E2C Steamboat Springs, CO 80487
P.O. Box 775729
Steamboat Springs, CO 00477

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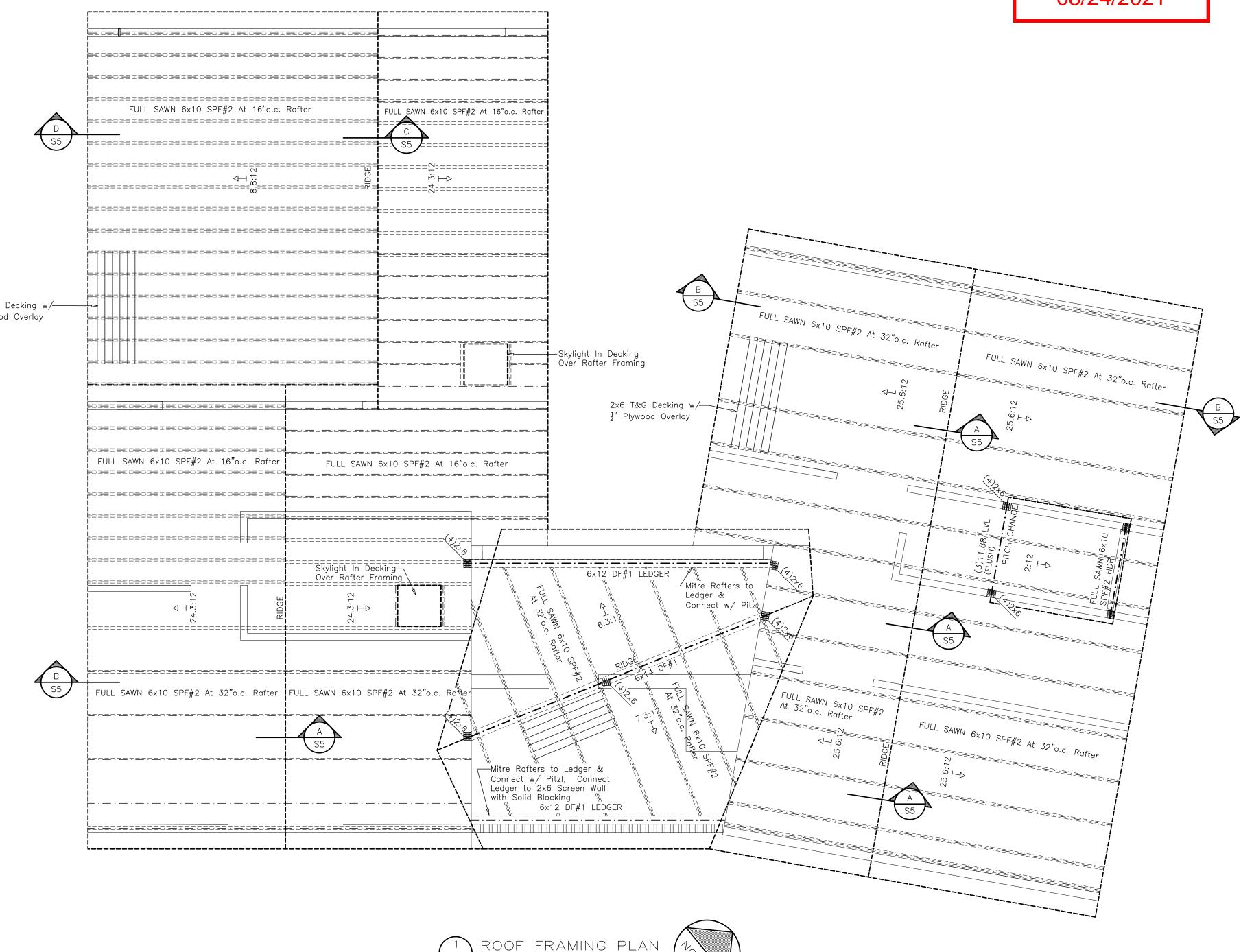
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Steamboat Springs, CO 08477
carl@engineeringdesignworks.com
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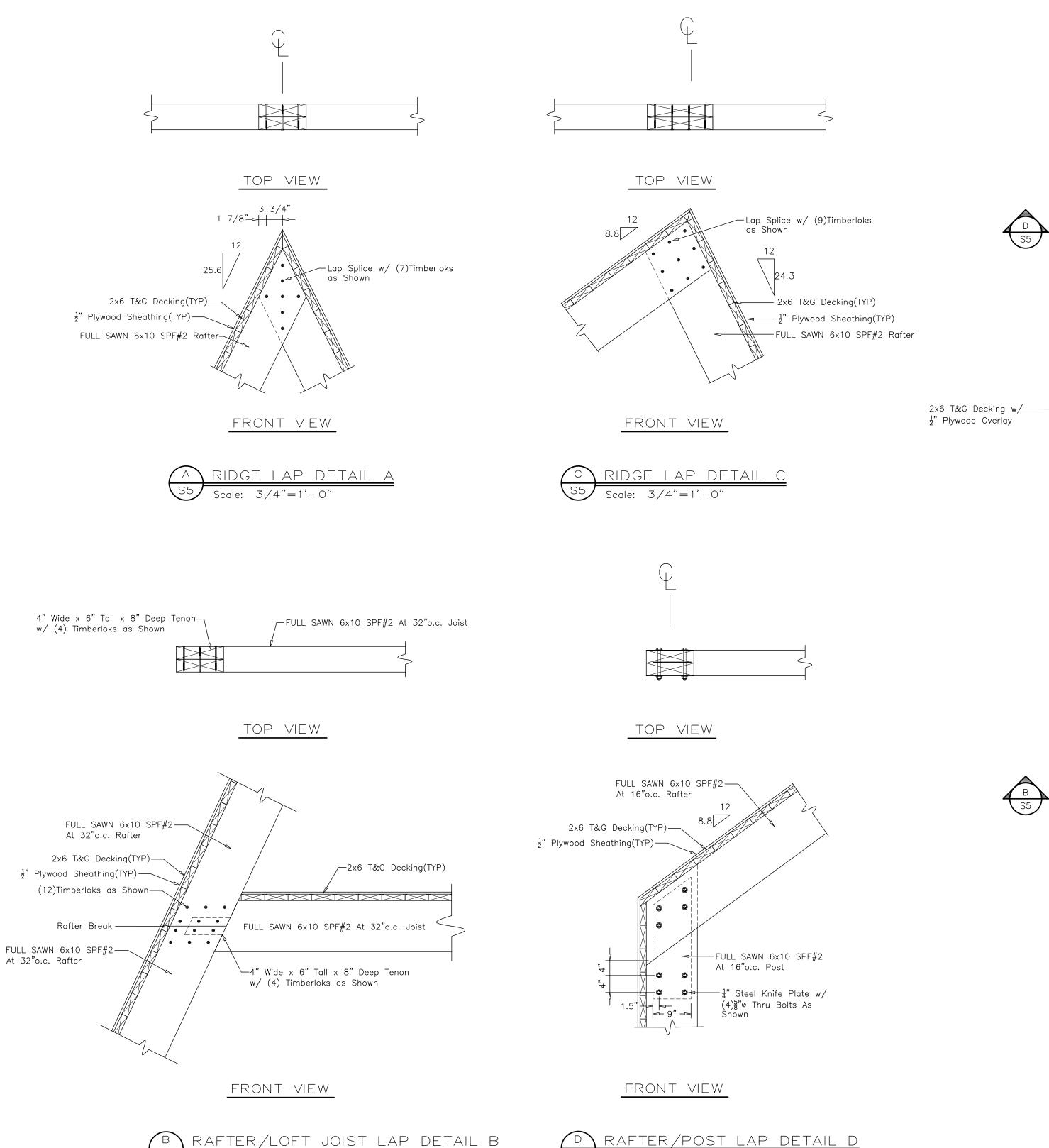
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1859 RIVER QUEEN LANE
STEAMBOAT SPRINGS, COLORADO

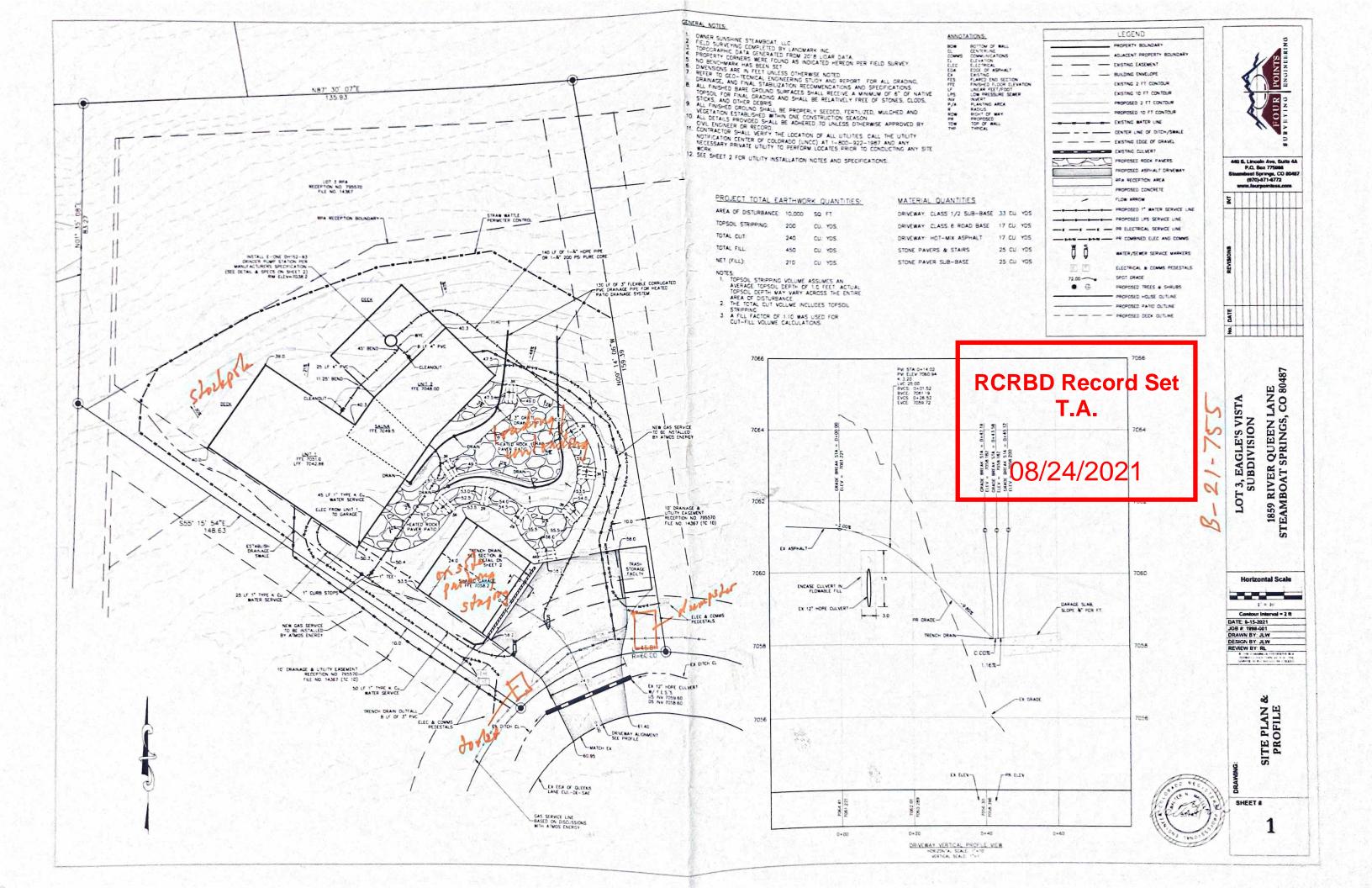
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Scale: 3/4"=1'-0"

Scale: 3/4"=1'-0"





## Checklist #1 for Building Permit Applications

**RCRBD Record Set** 



City of Steamboat Springs

This list is provided to help speed up your plan review by making sure the basic required information is shown on your submittal. Plans will not be accepted if the required information is not shown of if an item planted as "NAUse" deemed to be applicable for this type of project. Additional information may be equired based on site-specific conditions or to respond to City development review comments. Please call the appropriate City department if you have any questions related to a specific requirement. The applicant is required to review and sign the affidavit on the bottom of this checklist, accepting responsibility for any incomplete submittal and thus possible result of a delayed review time. For additional information regarding a particular requirement, see the Routt County Building Department website.

City Water/Sewer- 871-8200	Fire Prevention- 879-7170	Engineering- 871-8200	Planning- 871-8258
Applicant Name:	Bradley Bortels (Please Print)	Permit #: TB	21- 755

**Important:** Any project required to submit Civil Construction Plans and/or Documents to Public Works must include the approved Civil Construction Plans (w/ approval block signed by departments) as part of the Building Permit submittal. See development approval conditions or contact Planning staff. If the Building Department verifies this has been attached, then only the CSMP and SWMP requirements need be verified.

Building Permit has associated grading and drainage Civil

Construction Documents on record with Public Works?		
		ck
Site Plan Information	Yes	No
North Arrow Indicator, Scale, and Benchmark		
Legal Description, Property Address, Owner's Name, Lot Size in Square Feet		
Existing and Proposed Topography: Contour Lines at 2 foot Intervals, Source of Topography		
Location and Dimensions of all Roads on or Adjacent to the Subject Property. Show Location of Adjacent and Opposing Driveways.		
Location and Dimensions of Right-of –Way and all Easements- No Landscaping or Structural Improvements in the ROW or Easement		
Location and Dimension of Lot Lines, Building Envelopes and Setbacks		
Location and Dimensions of all Buildings on the Lot (Existing and Proposed). Include decks, patios, roof overhangs, etc.		
Building and Garage Finish Floor Elevation		
Alignment and Pipe Type of <u>ALL</u> Existing and Proposed Utilities, Including Meters (Water, Sewer, Gas). The Plan must clearly identify changes in bury depth to all existing utilities.		
Show ALL Above Surface Public Appurtenances Identified in		

Relationship to any Proposed Improvement (i.e. Fire hydrants)	
Driveway Location, Width, Grade. Size and Length of any Culverts.	
Location and Dimensions of Sidewalks, Parking Areas, and Paving	
Existing Water Bodies, Drainages, Floodplain (limit and elevation), or	
Wetland Areas	
Existing and Proposed Storm Water Systems (swales, ditches, culverts,	
tc.); Arrow showing proposed drainage direction.	
Existing and Proposed Culverts w/ Invert Elevations, Size, and Flared	
End Sections or Headwalls Indicated	
Extent of Soil Disturbance and Phasing Plan; Show all proposed Erosion	
z Sedimentation Control Measures; Plans should indicate the total	
expected disturbed area in acres (to include all excavation, soil stockpile,	
nd project access areas)	
Details for any Permanent Storm Water Quality feature (i.e. % slope for	
rass buffers, level spreader designs, grass swale cross-sections, etc.)	
Add Note: All Disturbed Areas to be Re-vegetated	
ocation and Elevations (top and bottom) of any Retaining Walls;	
rovide a Cross-Section Design with Engineer's Stamp for any	
etaining Wall greater than 4 feet.	
loor Area Ratio Calculations	
Building Plan Information	
existing and Finished Grades on Building Elevation Drawings-	
ncluding Building Height(s).	
rovide a Detailed Code Analysis- Contact Fire Prevention w/ Questions	
oils Report- See RCBD informational materials for when required.	
Stormwater Management Plan/Construction Sit	e
Management Plan	7:4
Construction Site Management Plan (CSMP)- see additional checklist on C	July of
teamboat Springs Engineering documents website	1
tormwater Management Plan (SWMP) if area of disturbance is greater the	an I
cre - see additional checklist on City of Steamboat Springs Engineering	
ocuments website	
Historic Preservation	
xterior work on a property that is 50 years or older and may be	
ligible to an historic register will be reviewed by the Historic	
reservation Commission. To find out if the property is eligible contact	
ne Historic Preservation Division at 970-871-8258.	
taff Review By:	
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2/19/2018



# Checklist #2 for Building Permit Applications

**RCRBD Record Set** 

Check



City of Steamboat Springs

This list is provided to help speed up your plan review by making sure the basic required in the half of its shown our submittal. Plans will not be accepted if the required information is not shown or if an item marked as "N/A" is deemed to be applicable for this type of project. Additional information may be conditions or to respond to City development review comments. Please call the appropriate City department if you have any questions related to a specific requirement. The applicant is required to review and sign the affidavit on the bottom of this checklist, accepting responsibility for any incomplete submittal and thus possible result of a delayed review time. For additional information regarding a particular requirement, see the Routt County Building Department website.

City Water/Sewer- 871-8200	Fire Prevention- 879-7170	Engineering- 871-8200	Planning- 871-8258
Applicant Name:	Bradley Bardels (Please Print)	Permit #: TB -	21-755

Site Plan Information	Yes	No
Existing Conditions and Proposed Conditions Site Plan- can be printed		
off http://maps.steamboatsprings.net/ss/map.aspx for certain permits.		
North Arrow Indicator and Scale		
Legal Description, Property Address, Owner's Name, Lot Size in Square		
Feet		
Existing and Proposed Topography: Contour Lines at 2 foot Intervals,		
indicated source of topography information - applicable if any work is	1	
proposed outside the existing building footprint.		
Location and Dimensions of all Roads on or Adjacent to the Subject		
Property. Show Location of Adjacent and Opposing Driveways.		
Location and Dimensions of Right-of -Way and all Easements- No		
Landscaping or Structural Improvements in the ROW or Easement		
Location and Dimension of Lot Lines, Building Envelopes and Setbacks		
Location and Dimensions of all Buildings on the Lot (Existing and		
Proposed). Include Decks, Patios, Roof overhangs, etc.		
Building and Garage Finish Floor Elevation		
Alignment and Pipe Type of ALL Existing and Proposed Utilities,		
Including Meters (Water, Sewer, Gas).		
Show ALL Above Surface Public Appurtenances Identified in		
Relationship to any Proposed Improvement (i.e. Fire hydrants)		
Location and Dimensions of Sidewalks, Parking Areas, and Paving		
impacted by scope of work		
Existing and Proposed Storm Water Systems Impacted by Work (swales,		!
ditches, culverts, etc.); Arrow showing proposed drainage direction.		
Existing Water Bodies, Drainages, Floodplain (limit and elevation), or		
Wetland Areas impacted by scope of work		
Location and Elevations (top and bottom) of any Retaining Walls;		

Provide a Cross-Section Design with Engineer's Stamp for any		
Retaining Wall greater than 4 feet.		
Floor Area Ratio Calculations	-	
Building Plan Information		
Existing and Finished Grades on Building Elevation Drawings-		
Including Building Height(s).		
Provide Code Information- Contact Fire Prevention w/ Questions		
Historic Preservation		
Exterior work on a property that is 50 years or older and may be		
eligible to an historic register will be reviewed by the Historic		-
Preservation Commission. To find out if the property is eligible contact		
the Historic Preservation Division at 970-871-8258.		
Staff Review By:		

I Brasley Bartels	accept responsibility for the accuracy and completeness of
the contents of this Building	Permit application and accept responsibility for any
associated delays in City revi	lew due to incompleteness.

Applicant:

Phone #: 970.846.8026

(Applicant Signature)



# Construction Site Management Plan Checklist B-21-75

Prior to the approval of a building/ROW permit, any commercial, multi-famil, or applicate cing family and exproject must complete an approved Construction Site Management Plan (CSMP). Below a e the required items to be included in the CSMP. Please check "yes" if the item is included, "no" if it is not, and "N/A" if not-applicable. Please provide an explanation for any "No" answers at the bottom of the checklist.

510.

Project Name: Steam bout Spings Apme House Date: 7- Estimated Construction Start Date: 8-15-21 End Date: 8.	4-2	1	
Estimated Construction Start Date: $y-15-21$ End Date: $y=15$	-15 -	22	
Individual responsible for CSMP monitoring and compliance			
Name: Bradley Bardels Phone # (local):	770-2	846.	8026
	Yes	No	N/A
1. General			
a. CSMP is shown on the proposed site plan		<u> </u>	
b. Schedule Pre-Construction Meeting (required only for commercial, industrial, and multifamily projects)			
c. Right of Way permit (i.e. work or obstruction within ROW). If required, describe below and include estimated start and stop dates.			
2. Erosion and Sedimentation Control Plan showing			
a. Topographic Information – including sufficient detail to characterize the site	1		
b. Areas and extent of soil disturbance (show any phasing)	V		- 
c. Location of all on site and adjacent water bodies, wetlands, drainages, and storm water systems			
d. Vehicle tracking control measures (vehicle track pad, vehicle wash station, etc.)			
e. Inlet protection			-
f. Perimeter control measures (BMPs)		<u> </u>	
g. Standard details for all proposed control measures	-	<u> </u>	
3. Site Construction Facilities (Identify the following):			
a. Staging areas	-		
b. Stockpile areas			
c. Dumpsters and trash receptacles	<u> </u>	+	
d. Material recycling (wood, metal, plastics, etc.)		-	-
e. Sanitary facilities	V	<u> </u>	
f. Loading/Unloading areas			
g. Trailers and field offices (show access)		<u> </u>	
4. Parking:	13		
a. Location and number of onsite and any offsite stabilized parking areas			
b. Is project located downtown or at ski resort base area? If so, describe below where contractor parking will occur:			

5. External Traffic Control Plan showing:	iani kani bankalana	
a. Show/label all traffic control devices (MUTCD compliant)		-
b. Site access points; show existing adjacent streets and driveways; identify any changes and associated signage	-	
c. Sidewalks and trails; identify any changes and associated signage		<b></b>
d. Use of the public Right of Way (ROW) - generally not permitted (for constrained sites show any proposed use of ROW)		
e. Crane use details, including but not limited to, ROW encroachment, swing radius, loading locations (Crane will require ROW permit from the City)		
6. Internal Access Control showing		
a. Emergency access- 24' wide all weather surface for emergency access thru site (to be maintained at all times)		
7. CSMP Standard Notes:		
a. Standard CSMP notes included on the site plan or Civil Plan Sheets		
8. Dust Control		
Provide explanation for any "No" or "N/A" answers:		

<sup>\*\*</sup> Plans shall be phased and updated as the project evolves and site conditions change.

<sup>\*\*</sup> Please notify adjacent property owners prior to mobilization.

<sup>\*\*</sup> Refer to chapter 36 of the Community Development Code for more information.

# SUBSOIL AND FOUNDATION INVESTIGATION LOCKHART SUBDIVISION FIRE Eagles Visto RIVER QUEEN LANE STEAMBOAT SPRINGS, COLORADO

RCRBD Record Set T.A.

07/16/2021

Prepared by

NWCC, Inc. 2580 Copper Ridge Drive Steamboat Springs, CO 80487



Prepared for

Kokee Kokee, LLC Ty Lockhart 830 Lincoln Avenue Steamboat Springs, CO 80847

NWCC Project NO. 17-10640

September 5, 2017

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#### 1.0 CONCLUSIONS

Based on results of the field and laboratory investigations, NWCC, Inc. (NWCC) recommends the proposed single-family residences and garages to be constructed within this subdivision be founded on footings placed on the natural sands and clays and/or natural sands and gravels encountered beneath the existing fill materials and the topsoil and organic materials.

## 2.0 PURPOSE AND SCOPE OF WORK

This report presents the results of the Subsoil and Foundation Investigation completed for the Lockhart Subdivision to be constructed within a vacant parcel of land located at the southwest end of River Queen Lane in Steamboat Springs, Colorado. The approximate location of the project site is shown in Figure #1.

The scope of our work included obtaining data from a visual inspection of the site; the excavation of seven (7) test pits; sampling of the soils and the laboratory testing of the samples obtained. This report summarizes the results of the field investigation and the laboratory test results, as well as our recommendations for foundation design, floor slabs, foundation walls, site grading and pavement sections based on the proposed construction and the subsurface conditions encountered.

#### 3.0 PROPOSED CONSTRUCTION

NWCC understands the proposed construction will consist of six (6) single family residences within the subdivision. The lot sizes will range from 0.23 to 0.48 acres in size. NWCC has assumed the residences will consist of 1 to 2 story wood framed structures constructed with attached garages and walkout basement levels. NWCC has assumed the lower levels of the residences and garages will be constructed with concrete slab-on-grade floor systems. We have assumed the loads generated by the proposed building structures will be variable and range from light to moderate, typical of this type of residential construction.

Some overlot site grading, roadway and utility construction will be required. The majority of the grading will occur at the end of the existing cul-de-sac; at the west end of the property for the water quality detention pad; and cut and fill placement within a majority of the lot entrances. NWCC has assumed that the remaining cuts and fills constructed within each of the individual lots will be on the order of 5 to 15 feet or less to bring the sites to the finish grades.

#### 4.0 SITE CONDITIONS

The project site is located at the southwest end of River Queen Lane in Steamboat Springs, Colorado. The site is bordered on the north, south and west by developed single and multi-family homes and on the east by existing townhomes.

A majority of the site consists of vacant, undisturbed land that is vegetated with native grasses, weeds, scrub oaks and sage brush. Previous site grading, which appears to consist of fill placement on the order of 5 to 10 feet in depth, has occurred at and around the existing cul-de-sac.

The topography of the project site is variable and the central portion of the lot, where the road and pond will be constructed, sits on a ridgeline that slopes gently to strongly down to the west. The remainder of the property, proposed building lots and greenbelt area, generally slope moderately to steeply down to the south, southwest and northwest at 5 to 25 percent. Steeper natural slopes, greater than 30%, are situated along the southern and northern edges of the property. A maximum elevation difference of approximately 25 to 60 feet appears to exist at each of the lots.

#### 5.0 FIELD INVESTIGATION

The field investigation for this project was conducted on August 18, 2017. Seven (7) test pits were advanced at the approximate locations shown in Figure #2. The test pits were excavated with a PC 138 trackhoe. The test pits were logged and samples were obtained at the time of excavation by an engineer from NWCC. Graphic logs of the exploratory test pits are shown in Figure #3 and #4 along with the associated Legend and Notes.

#### 6.0 LABORATORY INVESTIGATION

Samples obtained from the test pits were examined and classified in the laboratory by the project engineer. Laboratory testing included standard index property tests including natural densities and moisture contents, dry unit weights, grain size analyses and liquid and plastic limits. Swell-consolidation testing was also conducted on relatively undisturbed samples of the natural sands and clays. Swell-consolidation test results are shown in Figures #5 to #7 and the results are discussed in the following section. The results of the laboratory testing are summarized in the Table #1 that follows the figures. Laboratory testing was conducted in general accordance with applicable ASTM specifications.

### 7.0 SUBSURFACE CONDITIONS

The subsurface conditions encountered in the test pits excavated across the proposed subdivision were highly variable and generally consisted of a layer of natural topsoil and organic materials or existing fill materials overlying natural sands and clays or sands and gravels to the maximum depth investigated, 12 feet beneath existing ground surface (bgs).

Natural topsoil and organic materials were encountered at the ground surface or beneath the existing fill materials in all of the test pits. The layers of topsoil and organic materials were approximately 1 ½ to 3 feet in thickness. The natural topsoil and organic materials were silty dry to moist and dark brown to black in color.

Sand and gravel fill materials were encountered at the ground surface in the central portion of the site (Test Pits 3 and 4) and beneath the proposed roadway and pond. The fill materials ranged from 4 ½ to 9 feet in thickness. The sand and gravel fill materials were silty to clayey, fine to coarse grained with cobbles and boulders, non to very low plastic, medium dense, slightly moist and brown in color. Samples of the fill materials classified as SM and GM soils in accordance with the Unified Soil Classification System (USCS).

Natural sands and clays were encountered below the natural topsoil and organic material and natural sands and gravels in all but two of the test pits. The sands and clays were fine to coarse grained with gravels, low plastic, very stiff to dense, moist to slightly moist and brown in color. Samples of the natural sands and clays classified as SC to CL soils in accordance with the USCS.

Sands and gravels were also encountered below the natural topsoil and organic materials and existing fill materials. The sands and gravels were clayey, fine to coarse grained with cobbles and boulders, low plastic, dense, dry to moist and brown to gray in color.

Swell-consolidation testing conducted on relatively undisturbed samples of the natural sands and clays indicate that the materials tested will exhibited a low swell potential when wetted under a constant load. The swell-consolidation test results are shown in Figures #5 through #7, and all of the other test results are summarized in the associated Table 1.

Groundwater seepage was not encountered in any of the test pits at the time of excavation and no signs of a seasonal high groundwater table were observed. It should be noted that the groundwater conditions at this site can be expected to fluctuate with precipitation and seasonal runoff.

Based on the subsurface conditions encountered at the site, the laboratory test results and our review of the available literature, NWCC recommends that a Site Class C be used for the foundation designs in accordance with Table 20.3-1 in Chapter 20 of ASCE 7-10.

#### 8.0 FOUNDATION RECOMMENDATIONS

Based on the subsurface conditions encountered in the test pits, the results of the field and laboratory investigations and our assumptions regarding the proposed building construction, NWCC believes an economically feasible and safe type of foundation system is spread footings or individual pads with grade beams founded on the natural sand and clays and/or sands and gravels encountered below the topsoil and organic materials and any existing fill materials. The precautions and recommendations itemized below will not prevent the movement beneath the foundation if the underlying sands and clays swell. However, they should reduce the amount of differential movement beneath the foundation system.

1) Footings placed on the undisturbed natural sands and clays and/or sands and gravels should be designed using an allowable soil bearing pressure of 3,000 psf. Based on the swell-potential of

the natural sands and clays, the footings should also be designed for a minimum dead load pressure of at least 700 psf. Increasing minimum dead load pressures will help reduce differential foundation movement if the sands and clays become wetted and swell.

- 2) Footings or pad sizes should be computed using the above soil pressures and placed on the natural undisturbed sands and clays and/or sands and gravels found beneath the existing topsoil and fill materials and any fill materials.
- Any topsoil, as well as any existing fill materials or loose and soft natural soils encountered within the foundation excavations should be removed and the excavations extended to competent natural soils prior to concrete placement. The footings may have to be narrow or interrupted to maintain the minimum dead load. The foundation design should be closely checked to assure that it distributes the loads per the allowable pressures given.
- 4) Foundation walls should be designed and reinforced to span an unsupported distance of 10 feet or the length between pads, whichever is greater.
- 5) Footings or pads should be placed well enough below final backfill grades to protect them from frost heave. Forty-eight (48) inches is typical for this location considering normal snow cover and other winter factors.
- Based on experience, we estimate the total settlement for footings and pads designed and constructed as discussed in this section will be approximately 1 inch. Additional bearing capacity values along with the associated settlements are presented in Figure #8.
- 7) We strongly recommend that the client retain NWCC to observe the foundation excavations when they are near completion to identify the bearing soils and confirm the recommendations in this report.

#### 9.0 FLOOR SLAB RECOMMENDATIONS

NWCC has assumed the proposed residences and garages will be constructed with concrete slab-on-grade floor systems placed at varying depths across the site. The on-site soils, apart from the existing topsoil and organic materials, are capable of supporting slab-on-grade construction. However, floor slabs present a very difficult problem where swelling materials are present near floor slab elevation because sufficient dead load cannot be imposed on them to resist the uplift pressure generated when the materials are wetted and expand. Based on the moisture-volume change characteristics of the sands and clays encountered at this site, we recommend that structural floor systems over well-ventilated crawlspaces or void form be used in the proposed residences.

If the client elects to construct concrete slab-on-grade floor systems, we recommend the following special design and construction precautions be followed so that the amount of movement in the floor slabs can be reduced, if the sands and clays become wetted.

- 1) Floor slabs should be separated from all bearing walls, columns and their foundation supports with a positive slip joint. We recommend the use of ½-inch thick cellotex or impregnated felt.
- 2) Interior non-bearing partition walls resting on the floor slabs should be provided with a slip joint, preferably at the bottom, so that in the event the floor slab moves, this movement is not transmitted to the upper structure. This detail is also important for wallboard and doorframes and is shown in Figure #9.
- A minimum 6-inch gravel layer should be provided beneath all floor slabs to act as a capillary break and to help distribute pressures. Prior to placing the gravel, the excavation should be shaped so that if water does get under the slab, it will flow to the low point of the excavation. In addition, all of the topsoil and organic materials should be removed prior to placement of the underslab gravels or new structural fill materials.
- 4) Floor slabs should be provided with control joints placed a maximum of 12 feet on center in each direction to help control shrinkage cracking. The location of the joints should be carefully checked to assure that the natural, unavoidable cracking will be controlled. The depth of the control joints should be a minimum of ¼ the thickness of the slab.
- 5) Underslab soils should be kept as close as possible to their in-situ moisture content. Excessive wetting or drying of these soils prior to placement of the floor slab could result in differential movement after the slabs are constructed.
- It has been our experience that the risk of floor slab movement can be reduced by removing at least 2 feet of the expansive materials and replacing them with a well compacted, non-expansive fill. If this is done, or if fills are required to bring the underslab soils to the desired grade, the fill should consist of non-expansive, granular materials. The fill should be uniformly placed and compacted in 6 to 8 inch lifts to at least 95% of the maximum standard Proctor density at or near the optimum moisture content, as determined by ASTM D-698/AASHTO T-99.

The above precautions and recommendations will not prevent floor slab movement in the event the sands and clays beneath the floor slabs undergo moisture changes. However, they should reduce the amount of damage if such movement occurs. The only way to eliminate the risk of all floor slab movement is to construct a structural floor over a well-vented crawl space or void form materials.

#### 10.0 PERIMETER DRAINAGE SYSTEM RECOMMENDATIONS

Any floor levels or crawl space areas constructed below the existing or finished ground surfaces and the foundations should be protected by underdrain systems to help reduce the problems associated with surface and subsurface drainage during high runoff periods.

Localized perched water or runoff can infiltrate the lower levels of the structures at the foundation levels. This water can be one of the primary causes of differential foundation and slab movement. Especially, when expansive soils are encountered. Excessive moisture in crawl space areas or lower levels can also lead to rotting and mildewing of wooden structural members and the formation of mold and mold spores. Formation of mold and mold spores could have detrimental effects on the air quality in these areas, which in turn can lead to potential adverse health effects.

Drains should be located around entire perimeter of the lower levels and be placed and at least 12 inches below any floor slab or crawl space levels and at least 6 inches below the foundation voids and bottom of the foundation walls or footings. NWCC recommends the use of perforated PVC pipe for the drainpipe, which meets or exceeds ASTM D-3034/SDR 35 requirements, to minimize potential for pipe crushing during backfill operations. Holes in the drainpipe should be oriented down between 4 o'clock and 8 o'clock to promote rapid runoff of water. Drainpipe should be surrounded with at least 12 inches of free draining gravel and should be protected from contamination by a filter covering of Mirafi 140N subsurface drainage fabric or an equivalent product. Drains should have a minimum slope of 1/8 inch per foot and be daylighted at positive outfalls protected from freezing, or be led to sumps from which water can be pumped. The use of interior laterals, multiple daylights or sumps may be required for the proposed structure. Caution should be taken when backfilling so as not to damage or disturb the installed underdrains. NWCC recommends the drainage systems include a cleanout every 100 feet, be protected against intrusion by animals at outfalls and be tested prior to backfilling. NWCC also recommends the client retain our firm to observe the underdrain systems during construction to verify that they are being installed in accordance with recommendations provided in this report and observe a flow test prior to backfilling the system.

In addition, NWCC recommends an impervious barrier be constructed to keep water from infiltrating through the voided areas and/or under the foundation footings. Barrier should be constructed of an impervious material, which is approved by this office and placed below the perimeter drain and up against the sides of the foundation walls. A typical perimeter/underdrain detail is shown in Figure #10.

Placement of and impervious membrane and/or properly compacted clays in crawl space areas to the top of the footings or at least 12 inches above the top of the foundation voids or bottom of the foundation walls should help reduce the moisture problems in these areas.

#### 11.0 FOUNDATIONS WALLS AND RETAINING STRUCTURE RECOMMENDATIONS

Foundation walls and retaining structures, which are laterally supported and can be expected to undergo only a moderate amount of deflection (at rest), may be designed for a lateral earth pressure computed on

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the basis of an equivalent fluid unit weight of 45 pcf for imported, free draining granular backfill and 55 pcf for the on-site soils.

Cantilevered retaining structures on the site can be expected to deflect sufficiently to mobilize the full active earth pressure condition. Therefore, cantilevered structures may be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 35 pcf for imported, free draining granular backfill and 45 pcf for the on-site soils.

Foundation walls and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent buildings, traffic and construction materials. An upward sloping backfill and/or natural slope will also increase the earth pressures on foundation walls and retaining structures.

NWCC recommends imported granular soils for backfilling foundation walls and retaining structures because their use results in lower lateral earth pressures. The imported granular materials should be placed to within 2 to 3 feet of the ground surface. Imported granular soils should be free draining and have less than 7 percent passing the No. 200 sieve. The granular soils behind foundation and retaining walls should be sloped from the base of the wall at an angle of at least 45 degrees from the vertical. The upper 2 to 3 feet of fill should be a relatively impervious soil or pavement structure to prevent surface water infiltration into the backfill.

Wall backfill should be carefully placed in uniform lifts and compacted to at least 95 % of the maximum standard Proctor density and within 2% of the optimum moisture content. Care should be taken not to overcompact the backfill since this could cause excessive lateral pressure on the walls. Some settlement of deep foundation wall backfill materials will occur even if the material is placed correctly.

#### 12.0 SITE DRAINAGE RECOMMENDATIONS

Proper surface drainage at these lots is of paramount importance for minimizing the infiltration of surface drainage into the wall backfill and bearing soils, which could result in increased wall pressures, differential foundation and slab movement. The following drainage precautions should be observed during construction and at all times after the structures have been completed:

- 1) Ground surface surrounding the structures should be sloped (minimum of 1.0 inch per foot) to drain away from the structure in all directions to a minimum of 10 feet. Ponding must be avoided. If necessary, raising the top of foundation walls to achieve a better surface grade is advisable.
- 2) Non-structural backfill placed around the structures should be compacted to at least 95% of the maximum standard Proctor density at or near the optimum moisture content in order to minimize future settlement of the fill. Backfill should be placed immediately after the braced foundation walls are able to structurally support the fill. Puddling or sluicing must be avoided.
- 3) Top 2 to 3 feet of soil placed within 10 feet of the foundations should be impervious in nature to minimize infiltration of surface water into the wall backfill.

- 4) Roof downspouts and drains should discharge well beyond the limits of all backfill. Roof overhangs, which project two to three feet beyond the foundations, should be considered if gutters are not used.
- 5) Landscaping, which requires excessive watering and lawn sprinkler heads, should be located a minimum of 10 feet from the foundation walls of the structures.
- 6) Plastic membranes should not be used to cover the ground surface adjacent to foundation walls.

#### 13.0 SITE GRADING RECOMMENDATIONS

All fill materials placed beneath the interior floor slabs, exterior flat work, pavement areas, underground utilities and within the proposed pond should be compacted to at least 95 percent of the maximum standard Proctor density and within 2 percent of the optimum moisture content as determined in accordance with ASTM D698/AASHTO T99. The fills placed in these areas should not contain boulders, topsoil, organics or other deleterious substances. The fill materials placed in the landscaped areas should be compacted to at least 90 percent of the maximum standard Proctor density. The materials not suitable for use under the buildings and pavement areas should be placed in the bottom of the fills in landscaped areas, where some settlement can be tolerated.

Site grading should be carefully planned to provide positive surface drainage away from all the buildings and pavement areas. The buildings and pavement areas should be placed as high as possible on the sites so that positive drainage away from these structures can be provided. Surface diversion features should be provided around the paved areas to prevent surface runoff from flowing across the paved surfaces.

Although site grading plans for each of the lots were not available at the time of this report, we have assumed that cuts and fills of up to 5 to 15 feet in depth may be required to develop the individual lots. We recommend that the final fill slopes not exceed 2 (H) to 1 (V) configuration if they are properly compacted and drained. Positive surface drainage should be provided around all permanent cut and fill slopes to direct surface drainage away from the slope faces. All cut and fill slopes and other stripped areas should be protected against erosion by revegetation or other methods.

#### 14.0 PAVEMENT RECOMMENDATIONS

Pavement section alternatives presented below are based on laboratory test results, assumed traffic loadings indicated below, pavement design procedures presented in the AASHTO Guide for Design of Pavement Structures and our experience with similar sites and conditions in the Steamboat Springs area. AASHTO pavement design procedures have been adopted and are used by the Colorado Department of Transportation (CDOT).

Based on the results of the field and laboratory investigations and our understanding of the proposed construction, it appears the materials to be encountered at proposed pavement subgrade elevations along

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River Queen Lane will likely consist of existing sand and gravel fill materials. These materials generally classified as SC to GC soils in accordance with the Unified Soil classification system and as A-4 to A-6 soils in accordance with the AASHTO classification system. These materials are generally considered to provide adequate to fair support for pavement structures. Using these classifications and our experience with similar soils, NWCC has correlated the soil classification to a modulus of subgrade reaction of 3,750 psi, which was used in the pavement design calculations.

NWCC recommends the pavement areas subjected to both automobile and truck traffic, such as the new along River Queen Lane be constructed with a composite pavement section consisting of at least 4 inches of asphalt placed over 4 inches of Class 6 aggregate base course and 8 inches of subbase materials consisting of Class 2 aggregate base course. Pavements for driveways and other areas subjected to automobile traffic only should receive a composite pavement section consisting of at least 3 inches of asphalt placed over 4 inches of Class 6 aggregate base course and 8 inches of subbase materials.

NWCC recommends the areas subjected to heavy truck traffic turning movements, such as in the apron areas in front of the trash dumpster approach areas be paved with a rigid pavement section consisting of at least 7 inches of Portland cement concrete (PCC). Sidewalks subjected to pedestrian traffic should be paved using at least 4 inches of PCC and 5 inches in areas where occasional emergency or snow removal vehicle traffic is anticipated.

Prior to placement of subbase materials, NWCC recommends the exposed subgrade soils be uniformly mixed, moisture treated to within 2 % of the optimum moisture content and then be recompacted to at least 95 % of the maximum standard Proctor density. Depending on the time of year when subgrade preparation is considered, moisture conditioning including drying and/or moistening of subgrade materials will most likely be required in order to attain uniform compaction. NWCC also recommends that the properly moisture conditioned and recompacted subgrade soils be prooffolled with a loaded tandem dump truck prior to placing the subbase gravels. Areas exhibiting deflection and rutting will most likely require deeper stabilization. The depth and type of stabilization should be determined at the time of construction.

NWCC recommends the asphalt pavement material consist of an approved "Superpave" mix designed by a qualified, registered engineer. The mix design should be designed using the SX gradation and mixed with PG 58-28 oil or other performance graded asphaltic materials. The mix should be produced and placed by a qualified contractor and should be compacted to between 92 and 96 percent of the maximum theoretical (Rice) density. Quality control activities should be conducted on paving materials at the time of placement.

Base course materials should consist of a well-graded aggregate base course material that meets CDOT Class 6 ABC grading and durability requirements. Base course and subbase materials (Class 2 ABC) should be uniformly placed and compacted in 4 to 6-inch loose lifts to at least 95 % of the maximum modified Proctor density and within +/- 2 % of the optimum moisture content as determined by ASTM D1557.

Concrete pavement materials shall be based on a mix design established by a qualified engineer. Concrete should have a minimum 28-day compressive strength of 4,500 psi, be air entrained with approximately 6 percent air and have a maximum water/cement ratio of 0.42. Concrete should have a maximum slump of 4 inches and should contain control joints not greater than 12 feet on centers. The depth of the control joints should be at least ¼ of the slab thickness.

The collection and diversion of surface and subsurface drainage away from the paved areas is extremely important to satisfactory performance of the pavement. The design of the surface and subsurface drainage features should be carefully considered to remove all water from paved areas and to prevent ponding of water on and adjacent to paved areas. NWCC recommends subgrade areas be graded to drain if feasible so that surface runoff is not allowed to pond on the subgrade surface.

#### 15.0 LIMITATIONS

The recommendations given in this report are based on the subsurface conditions encountered in the test pits advanced across the project site, our assumptions regarding the proposed construction and the behavior of structures at neighboring, similar sites. We believe that this information gives a high degree of reliability for anticipating the behavior of the proposed structures; however, our recommendations are professional opinions and cannot control nature, nor can they assure the soils profiles beneath those or adjacent to those observed. No warranties expressed or implied are given on the content of this report.

Swelling soils were encountered throughout the subdivision. These soils are stable at their natural moisture content but can shrink or swell with changes in moisture. The behavior of swelling soils is not fully understood. The swell potential of any particular site can change erratically both in lateral and vertical extent. Moisture changes also occur erratically, resulting in conditions, which cannot always be predicted. The recommendations presented in this report are based on the current state of the art for foundations and floor slabs on swelling soils. The owner should be aware that there is a risk in construction on these types of soil. Performance of the structures will depend on following the recommendations and in proper maintenance after construction is complete. As water is the main cause for volume change in these soils, it is necessary that the changes in moisture content be kept to a minimum. This requires judicious irrigation and providing positive surface drainage away from the structures. Any distress noted in the structures should be brought to the attention of this office.

This report is based on the investigation at the described site and on the specific anticipated construction as stated herein. If either of these conditions is changed, the results would also most likely change. Therefore, we strongly recommend that our firm be contacted prior to finalizing the construction plans so that we can verify that our recommendations are being properly incorporated into the construction plans. Man-made or natural changes in the conditions of a property can also occur over a period of time. In addition, changes in requirements due to state of the art knowledge and/or legislation do from time to time occur. As a result, the findings of this report may become invalid due to these changes. Therefore, this report is subject to review and not considered valid after a period of 3 years or if conditions as stated above are altered. It is the responsibility of the owner or his representative to insure that the information in this report is incorporated into the plans and/or specifications and construction of the project. It is

advisable that a contractor familiar with construction details typically used to dealing with the local subsoils and climatic conditions be retained to build the structures.

If you have any questions regarding this report or if we may be of further service, please do not hesitate

to contact us.

Sincerely, NWCC, INC.

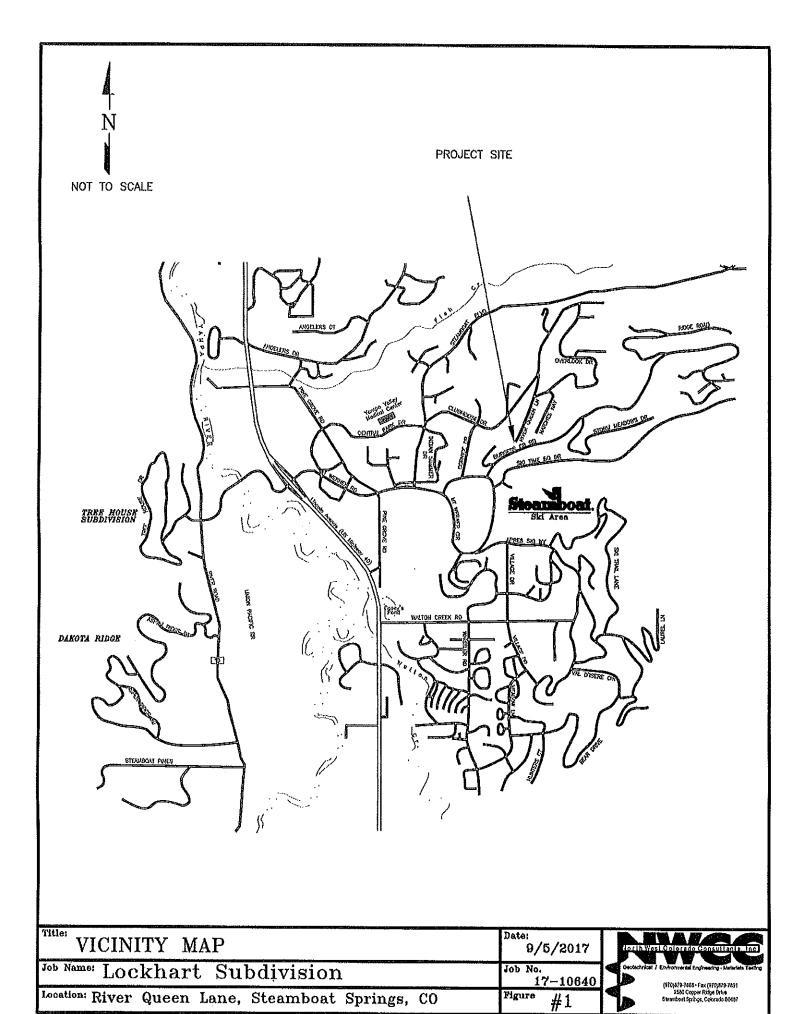
Brian D. Len, P.E. Principal Engineer

RCRBD Record Set T.A.

07/16/2021

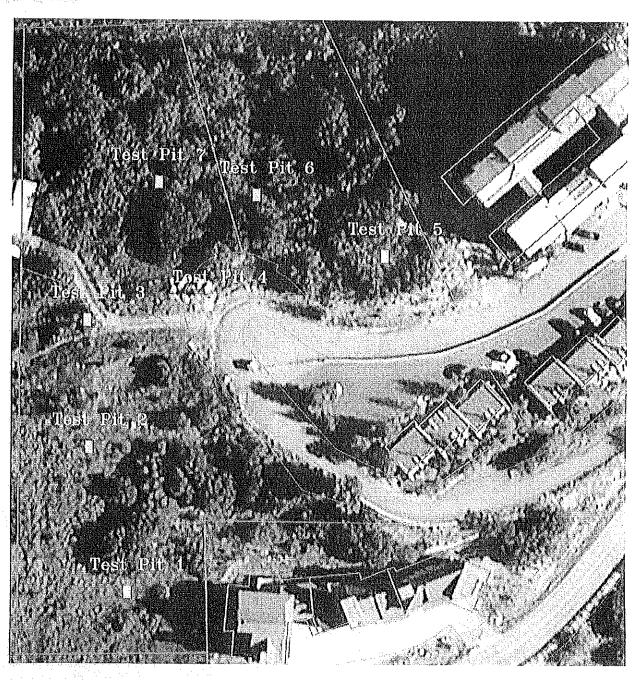
Reviewed by Timothy S. Travis, P.E. Sr. Project Engineer

cc: Erik Griepentrog - Landmark Consultants

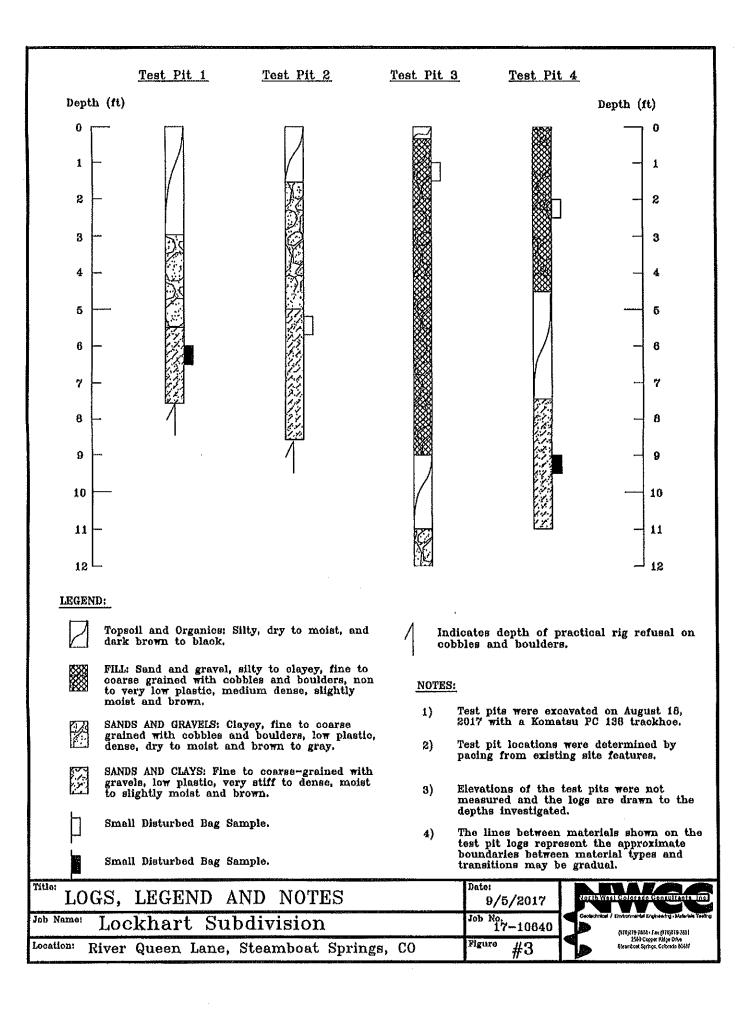


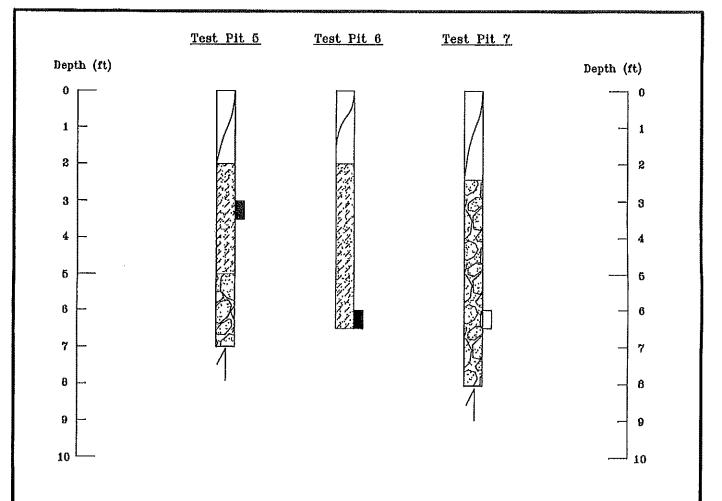


NOT TO SCALE



SITE PLAN - TEST HOLE LOCATIONS	Date: 9/5/2017	thath West Golog at a Consultants. Incl
Joh Name: Lockhart Subdivision	Job No. 17-10640	Geologica I Enforced Englanding Palata Terry
Location: River Queen Lane, Steamboat Springs, CO	Figuro #2	1861 Circu Kitri Din Susiten Spirja, Cedenbili (H)





#### LEGEND:

Topsoil and Organics: Silty, dry to moist, and dark brown to black.

FILL: Sand and gravel, silty to clayey, fine to coarse grained with cobbles and boulders, non to very low plastic, medium dense, slightly moist and brown.

SANDS AND GRAVELS: Clayey, fine to coarse grained with cobbles and boulders, low plastic, dense, dry to moist and brown to gray.

SANDS AND CLAYS: Fine to coarse-grained with gravels, low plastic, very stiff to dense, moist to slightly moist and brown.

Small Disturbed Bag Sample.

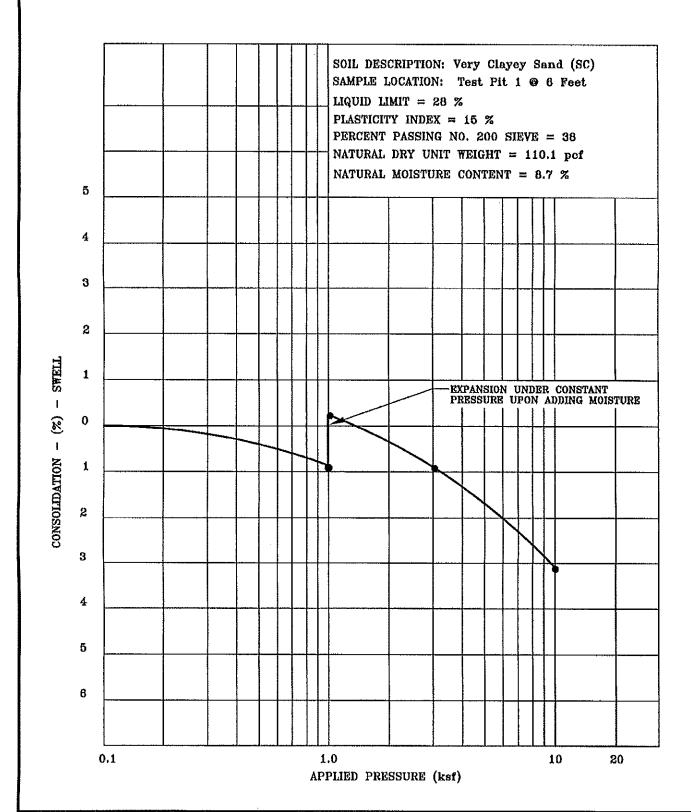
Small Disturbed Bag Sample.

Indicates depth of practical rig refusal on cobbles and boulders.

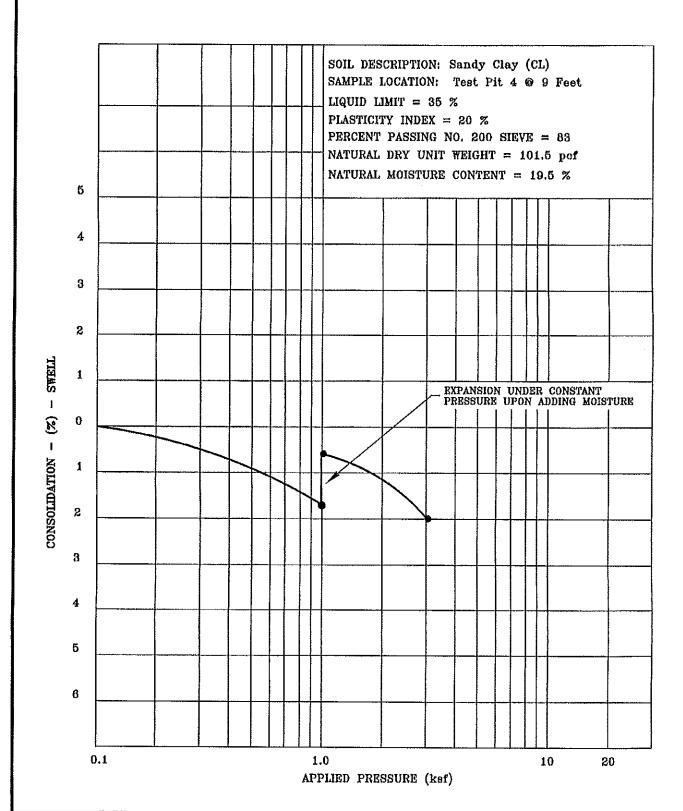
#### NOTES:

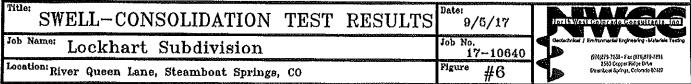
- Test pits were excavated on August 18, 2017 with a Komatsu PC 138 trackhoe.
- 2) Test pit locations were determined by pacing from existing site features.
- Elevations of the test pits were not measured and the logs are drawn to the depths investigated,
- 4) The lines between materials shown on the test pit logs represent the approximate boundaries between material types and transitions may be graduel,

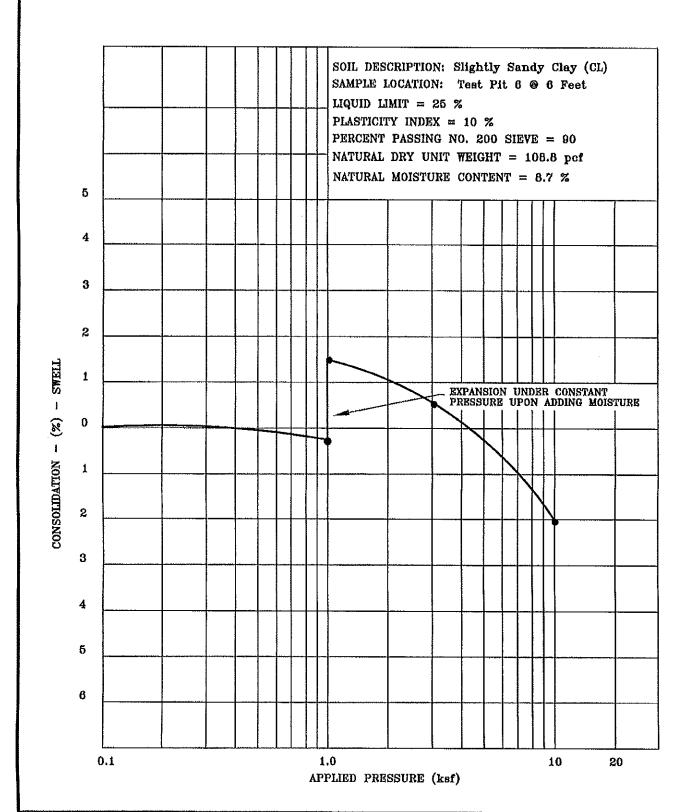
LOGS, LEGEND AND NOTES	Date: 9/5/2017 torth West Coloredo Continiante. Inc
Job Name: Lockhart Subdivision	Job No. 17-10640   Control   Entonored England   Face   Page   Pa
Location: River Queen Lane, Steamboat Springs, CO	Figure #4



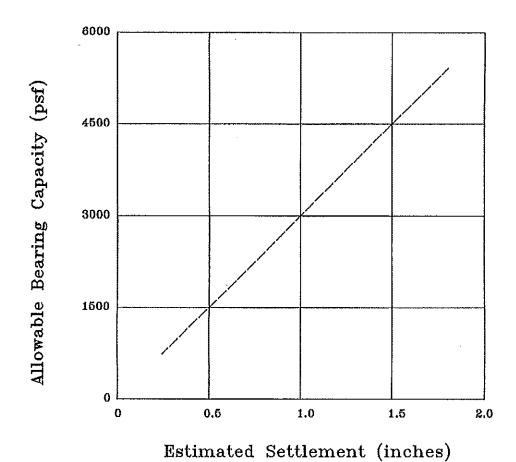
SWELL-CONSOLIDATION TEST RESULTS	Date: 9/5/17	loub West Colorado Consultants, incl
Job Name: Lockhart Subdivision	Jeb No. 17-10640	Occidental i Emissiveral Engineetig - Material Teating (7/10/2/14/1865 - Fac (7/10/2/14/1865)
Location; River Queen Lane, Steamboat Springs, CO	Figure #5	1550 Copper Plidipe Diske Strenikosi Sprinya, Colorads bishti





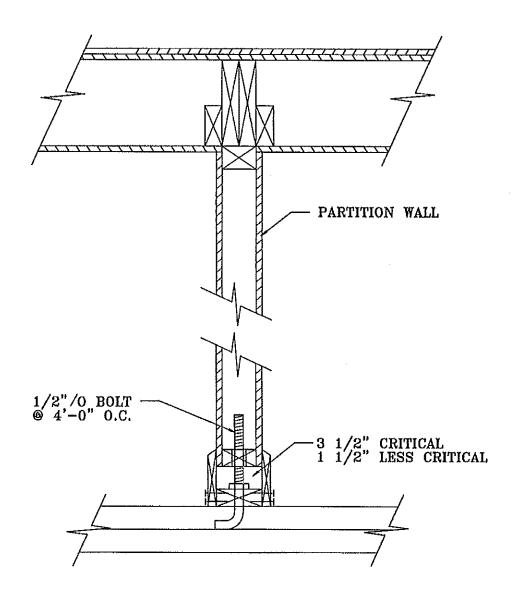


SWELL-CONSOLIDATION TEST RESULTS	Date: 9/5/17 Corth West Coloredo Consultante, Inc.
Job Name: Lockhart Subdivision	Job No. 17-10640
Location: River Queen Lane, Steamboat Springs, CO	Figure #7

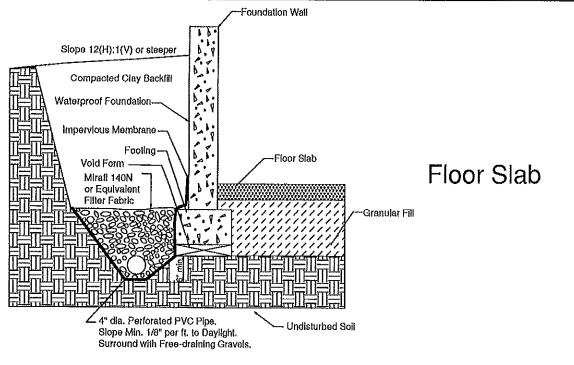


Note: These values are based on footing widths of 1 to 4 feet. If the footing width is to be greater than 4 feet in width, then we should be notified to re-evaluate these recommendations.

BEARING CAPACITY CHART	Date: 9/5/17	torth Wast Color to Consultante, inc.
Job Name: Lockhart Subdivision	Job No. 17-10640	Geolychrical I Environmental Engineering - Materials Teating p10;819-1885 - Fax (310;819-181)
Locationi River Queen Lane, Steamboat Springs, CO	Figure #8	2550 Copper Ridge Orke Skientose Eprings, Cobraso 80411



HUNG PARTITION WALL DETAIL	Date: 9/5/17	(prihWasi Colorado e
Job Name: Lockhart Subdivision	Job No. 17-10640	Geolechylical / Emilionnanial Engl
Location: River Queen Lane, Steamboat Springs, CO	Figure #9	255) Copper Searched Springs



PERIMETER/UNDERDRAIN DETAIL	Date: 9/5/17 forthwest Coloredo Consultants Inc.
Job Name: Lockhart Subdivision	Job No. 17-10640 Goodenical Feature and Engineering Engineering - Engine
Location: River Queen Lane, Steamboat Springs, CO	Figure #10

JOB NUMBER: 17-10640

NWCC, Inc.

TABLE 1
SUMMARY OF LABORATORY TEST RESULTS

		·	<del>,                                     </del>		1	, ,		1	1	·····
TIMINI	SOIL CLASS.		သွ	SC	СМ	SIM	CT.	<b>5</b>	ಕ	SC
SOIL or BEDROCK DESCRIPTION		Gravelly Clayey Sand	Gravelly Clayey Sand	Silty Sand and Gravel	Silty Sand and Gravel	Sandy Clay	Sandy Clay	Slightly Sandy Clay	Gravelly Clayey Sand	
UNCONFINED COMPRESSIVE STRENGTH (psf)										
PERCENT PASSING No. 200 SIEVE			38	31	20	17	83	76	06	56
GRADATION	SAND (%)		54	48	39	47	14	42	10	53
GRAD,	GRAVEL (Z)		50	21	41	36	m	0	0	21
ATTERBERG LIMITS	PLASTICITY INDEX (%)		15	11	5	N.	20	19	10	ວ
ATTERBE	LIQUID LIMIT (%)		28	24	21	NP	35	325	25	20
NATURAL DRY DENSITY (pcf)			110.1				101.5		108.8	
NATURAL MOISTURE CONTENT (%)			8.7	10.3	4.0	5.3	19.5	10.8	8.7	5.3
1 1	DEPTH (feet)		9	5	1–2	2-3	6	ಣ	9	9
SAMPLE LOCATION	TEST		1	હ્ય	8	4	4	5	9	2



Ph: 970-871-6772 · Fax: 970-879-8023 · P.O. Box 775966 · S

eaRCRBD Record Set

I.A.

Date: July 23, 2021

City of Steamboat Springs Planning Department 137 10<sup>th</sup> Street Steamboat Springs, CO

08/24/2021

RE: Lot 3 Eagle's Vista Duplex, 1859 River Queen Lane, Final Drainage Letter

Dear Engineering Department:

#### Introduction

This drainage letter presents an analysis of storm water runoff and stormwater management for the proposed duplex on Lot 3 Eagle's Vista Subdivision. Lot 3 parcel is 0.47 acres in size. The primary areas of focus is drainage into an existing designated receiving pervious area or RPA and maintaining drainage patterns per the Eagle's Vista Final Drainage Study.

#### Referenced Drainage Reports:

- Final Drainage Study and Stormwater Quality Plan for Eagle's Vista, Landmark Consultants, June 21, 2018.

#### **Existing Conditions**

Lot 3 is vacant/undeveloped land with native vegetation. The existing conditions of the lot is considered to be 2% impervious. Topography is variable, with moderate (10%-30%) to steep (30+%) grades on the majority of the site and transitioning to steep 2:1 and greater slopes to the northwest within the RPA. In general, all runoff from Lot 3 sheet flows into the designated RPA. There is no stormwater infrastructure currently present on the lot. A 12" HDPE culvert is located just in front of Lot 3 that manages ditch flow around the cul-de-sac. A defined outfall point was not identified from field surveying. Flows are tributary to the Yampa River.

#### **Proposed Conditions**

The proposed use of Lot 3 is a residential duplex with a detached garage and paved parking, paved access, and landscaping features. The disturbed area will be approximately 0.25 acres and proposed imperviousness will be approximately 35%. Grass lined swales are proposed along the east and west property lines within the 10-foot wide drainage/utility easements. These swales will convey runoff from Lot 3 northerly into the RPA. The swale outlets shall be tapered to a level grade approximately 8-10 feet wide at the outfall point into the RPA in order to disperse concentrated flows. Decorative cobble or rip-rap shall be utilized to reduce flow velocity and disperse runoff. A driveway trench drain will collect driveway sheet flows and outfall into the westerly swale. Swale flows are not anticipated to be significant given the relatively small drainage area so no drainage basin peak flows or swale capacity calcs were performed.

#### **Proposed Conditions (Continued)**

The driveway entrance off the Queen Lane cul-de-sac was designed to meet the intent of the Eagle's Vista Drainage Study and Eagle's Vista Civil Construction Drawings in order to capture and convey runoff within the right-of-way in front of Lot 3 to the permanent treatment facility located just southwest of Lot 3.

#### **Conclusions**

In conclusion:

- Drainage from Lot 3 will be conveyed and dispersed into the RPA on site.
- The driveway entrance was designed to conform with the Final Drainage Study and Civil Construction Drawings for the Eagle's Vista Subdivision.
- The site complies with City of Steamboat Springs engineering drainage criteria.

#### References

City of Steamboat Springs Engineering Standards, Section 5.0 Drainage Criteria. Prepared for City of Steamboat Springs, Department of Public Works, September 2007, updated July 2019.

Final Drainage Study and Stormwater Quality Plan for Eagle's Vista, Landmark Consultants, June 21, 2018.

#### **Note**

City of Steamboat Springs plan review and approval is only for general conformance with City design criteria and City code. The City is not responsible for the accuracy and adequacy of the design, dimensions, and elevations that shall be confirmed and correlated at this job site. The City of Steamboat Springs assumes no responsibility for the completeness or accuracy of this document.

#### **Certification Statement**

I, hereby affirm that this drainage letter and plan for Lot 2 Airport Meadows Subdivision was prepared by me (or under my direct supervision) for the owners thereof and is, the best of my knowledge, in accordance with the provisions of the City of Steamboat Springs Drainage Criteria and approved variances. I understand that the City of Steamboat Springs does not and will not assume liability for drainage facilities designed by others.



Joe Wiedemeier, PE, License No. 0054959, State of Colorado Four Points Surveying and Engineering

#### **Attachments**

- Standard Form No. 1 Checklist
- Proposed Conditions Grading and Drainage Plan

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08/24/2021