



Notice of the Regular Meeting of the Ophir Planning and Zoning Commission

Town of Ophir, Colorado, 81426

7:00 PM, Thursday, August 4, 2022

[Join Zoom Meeting](#)

Meeting ID: 857 6752 6940

Passcode: 655871

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Agenda

1. Approve the Agenda
2. Staff Reports
3. Business Items
 - a. Introduction of Dan Reardon of Shums Coda
 - b. Review of Hope Residence (Shults)
 - c. Discussion of 2018 IRC adoption
4. Administrative Items
 - a. There are currently two open seats on P&Z
5. New Business
6. Adjourn

ELEVATION MARK
 X → ELEVATION NUMBER
 XXX → SHEET NUMBER

SECTION/DETAIL MARK
 X → DETAIL NUMBER
 XXX → SHEET NUMBER

PLAN/DETAIL MARK
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ELEVATION CALLOUT
 REFERENCE → 1/ OR 8/ OBJECT
 XX-XX' → ELEVATION OF OBJECT

STEPS & SLOPES IN DECKS & SLABS
 X' → STEP HEIGHT

TOP OF WALL STEP

LEDGE STEP

BOTTOM OF WALL STEP

SLAB OR DECK SPAN DIRECTION

MONUMENT CONNECTION

BEAM SPLICE CONNECTION

BEAM POCKET CONNECTION

BEAM EMBED CONNECTION

COLUMN TAG
 CX → COLUMN SIZE, RE- PLAN
 BPX → STEEL BASE PLATE, RE- BASE PLATE SCHED

FOOTING TAG
 FX → FX SIZE, RE- SCHED
 XX-XX' → 1/FT ELEVATION

KEYNOTE

CONCRETE WALL TAG
 WX → WALL TYPE, RE- WALL SCHED

WOOD JOIST OR BEAM HANGER
 X → HANGER TYPE, RE- HANGER SCHED

STEEL BEAM/SIZER
 SIZE → BEAM/SIZER SIZE DESIGNATION
 (XX) → # IF PLACED ANCHOR STUDS
 R → SHEAR REACTION LEFT (KIPS)
 R' → SHEAR REACTION RIGHT (KIPS)
 [XX-XX'] → 1/STL ELEVATION

WOOD BEAM/SIZER
 [XX-XX'] → 1/8" ELEVATION, IF SHOWN

WOOD JOIST/Rafter/PRoMANUFACTURED ROOF TRUSS

SIMPSON COIL STRAP, RE- PLAN & KEYNOTES

CONCRETE WALL

STUD WALL

WALL BELOW

SHEAR WALL NOTATION
 SW-X → SHEAR WALL TYPE, RE- PLAN & SHEAR WALL
 X-X' → MINIMUM SHEAR WALL LENGTH
 HD → HELDOWN, RE- HELDOWN DETAIL & NODS ARE SHOWN, NO HELDOWNS REPEATED AT THAT LOAD

SHEAR WALL BELOW

CONCRETE COLUMN ABOVE

STEEL COLUMN ABOVE

WOOD COLUMN ABOVE

COLUMNS BELOW

MATERIAL IDENTIFICATION IN SECTION

CONCRETE

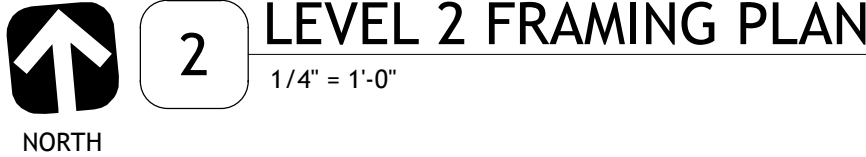
STEEL

SOIL UNDISTURBED

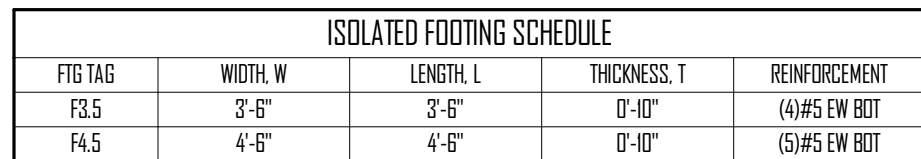
SOIL FILL

GRAVEL

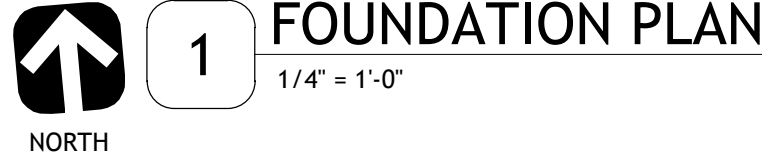
STUD WALL



- LEVEL 2 PLAN NOTES:**
1. TYPICAL FLOOR IS FINISHES, PER ARCH, OVER 1 1/2" CONC. THICKENING SLAB OVER 3/4" 6x8 GSB/PLYWOOD SHEATHING OVER 2" OIST FORMALIN. RE: GENERAL NOTES FOR SHEETING REQUIREMENTS. FLOOR SHEATHING IS ATTACHED W/ GLUE & NAILS W/ 0.131"X26" 1/2" @6" OC AT PANEL EDGES & 0.131"X26" 1/2" @2" OC IN FIELD, UNDO.
 2. TYPICAL EXTERIOR WALL IS FINISHES, PER ARCH, OVER 1/2" WALL SHEATHING OVER 2x6 DFL NO.2 STUDS @16" OC. WALL SHEATHING IS ATTACHED W/ 0.131"X26" 1/2" @6" OC AT PANEL EDGES & 0.131"X26" 1/2" @1" OC IN FIELD UNLESS DESIGNATED AS A SHEAR WALL. RE: SEAR WALL SCHEDULE FOR SHEAR WALL NAILING.
 3. DECK & PORCH FLOORING IS TO BE DECKING OVER JOIST FRAMING. RE: GENERAL NOTES FOR DECKING REQUIREMENTS. FASTEN DECKING TO FRAMING W/ (2) 1/10" WOOD SCREWS AS JOIST.
 4. TYPICAL STUD PACK IS (3) 2x6 DFL NO.2. UNDO: RE: TYPICAL DETAILS FOR BUILT-UP STUD PACK NAILING.
 5. NOT ALL HEADERS ARE SHOWN ON PLAN. RE: TYPICAL WOOD HEADER SCHEDULE FOR HEADER SIZING.
 6. ALL LVL MATERIAL SHALL BE 3/4" THICK, UNDO.
 7. RE: PLAN FOR T/2 SHEATHING & T/WALL ELEVATIONS.
 8. RE: ARCH FOR FINAL WINDOW & DOOR LOCATIONS.
 9. COORDINATE JOIST LAYOUT WITH LIGHTING; RE: ARCH.
 10. RE: 5-0.1 TO 5-0.3 FOR DESIGN CRITERIA. GENERAL NOTES, & LOAD KEYS.
 11. RE: 5-0.4 TO 5-0.6 FOR TYPICAL DETAILS.
 12. RE: 5-0.0 FOR SHEAR WALL, HOLDOWN, BASE PLATE, & HANGER SCHEDULES.



| CONTINUOUS FOOTING SCHEDULE | | | |
|-----------------------------|----------|--------------|----------------|
| FTG TAG | WIDTH, W | THICKNESS, T | REINFORCEMENT |
| FC16 | 1'-4" | 0'-10" | (2)#5 CONT BOT |
| FC24 | 2'-0" | 0'-10" | (3)#5 CONT BOT |



- 1. FOUNDATION PLAN NOTES:**
2. **1. TYPICAL FLOOR CONSTRUCTION IS 4" CONCRETE SLAB-ON-GRADE WITH #3@18"OC WD. CHAIRC'D TO MID-DEPTH.**
3. **2. TYPICAL FOUNDATION CONSTRUCTION IS 8" CONCRETE FOUNDATION WALLS ON CONTINUOUS SPREAD FOOTINGS.**
4. **3. FOOTINGS HAVE BEEN DESIGNED PER GEOTECH RECOMMENDATIONS FOR BEARING ON STRUCTURAL FILL.**
5. **4. SEE GEOTECH REPORT FOR SUBGRADE PREPARATION INCLUDING OVER-EXCAVATION & STRUCTURAL FILL REQUIREMENTS.**
6. **5. CONTINUOUS FOUNDATION WALLS HAVE BEEN DESIGNED TO RES. LOCAL ANOMALIES RESULTING IN A MINIMUM LENGTH OF 10' BETWEEN EACH REPAIR. SEE PLAN.**
7. **6. TYPICAL STUD PACK (B) (3)X(6) DFL NO. (NO. RE. TYPICAL DETAILS FOR BUILT-UP STUD PACK NAILING.**
8. **7. RE. TYPICAL DETAILS FOR FOOTING STEP.**
9. **8. RE. PLAN FOR 1/4"TS ELEVATIONS.**
10. **9. RE. S-0.1 TO S-0.3 FOR DESIGN CRITERIA, GENERAL NOTES, & LOAD KEYS.**
11. **10. RE. S-0.4 TO S-0.6 FOR TYPICAL DETAILS.**
12. **11. RE. S-0.7 TO S-0.8 FOR FOOTING SCHEDULE.**
13. **12. RE. S-0.9 TO S-0.11 FOR SHEAR WALL, HOLDOWN, RETAINING WALL, & BASE PLATE SCHEDULES.**

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WOOD JOIST/ RAFTER/ PREFABRICATED ROOF TRUSS

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WOOD COLUMN ABOVE

COLUMNS BELOW

MATERIAL IDENTIFICATION IN SECTION

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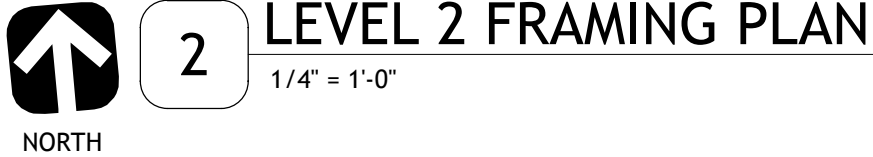
STEEL

SOIL UNDISTURBED

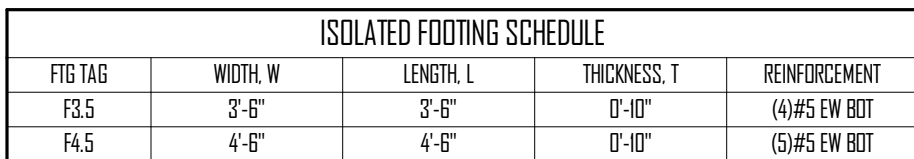
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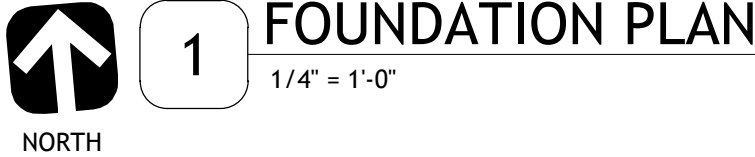
STUD WALL



- LEVEL 2 PLAN NOTES:**
1. **TYPICAL FLOOR IS FINISHES,** PER ARCH, OVER 1 1/2" CONC TOPPING SLAB OVER 3/4" THK GSB/PLYWOOD SHEATHING OVER 2X6 FLOOR FRAMING. RE: GENERAL NOTES ON SHEATHING REQUIREMENTS, FLOOR SHEATHING IS ATTACHED W/ GLUE & NAILS W/ 0.131"Ø2 1/2"Ø60°C AT PANEL EDGES & 0.131"Ø2 1/2"Ø12"Ø20C IN FIELD, UNO.
 2. **TYPICAL EXTERIOR WALL IS FINISHES,** PER ARCH, OVER 1/2" WALL SHEATHING OVER 2X6 FLD NO2 STUDS@16"ØC. WALL SHEATHING IS ATTACHED W/ 0.131"Ø2 1/2"Ø60°C AT PANEL EDGES & 0.131"Ø2 1/2"Ø12"Ø20C IN FIELD UNLESS DESIGNATED AS A SHEAR WALL, RE: SHEAR WALL SCHEDULE FOR SHEAR WALL NAILING.
 3. **DECK & DECK JOIST IS 2X6 DECKING OVER 2X4 DECKING OVER 2X4 DECKING,** RE: GENERAL NOTES FOR DECKING REQUIREMENTS. FASTEN DECKING TO FRAMING W/ (#2)10 WOOD SCREWS AS JOIST.
 4. **TYPICAL STUD PACK IS (3)2X6 FLD NO2, UNO.** RE: TYPICAL DETAILS FOR BUILT-UP STUD PACK NAILING.
 5. **NOT ALL HEADERS ARE SHOWN ON PLAN.** RE: TYPICAL WOOD HEADER SCHEDULE FOR HEADER SIZING.
 6. **ALL LIVIL MATERIAL SHALL BE 3/4" THICK, UNO.**
 7. **RE: PLAN FOR T/YSHEATHING & T/WALL ELEVATIONS.**
 8. **RE: ARCH FOR FINAL WINDOW & DOOR LOCATIONS.**
 9. **COORDINATE JOIST LAYOUT WITH LIGHTING,** RE: ARCH.
 10. **RE: S-0.1 TO S-0.3 FOR DESIGN CRITERIA, GENERAL NOTES, & LOAD KEYS.**
 11. **RE: S-0.4 TO S-0.6 FOR TYPICAL DETAILS.**
 12. **RE: S-5.0 FOR SHEAR WALL, HOLDOWN, BASE PLATE, & HANGER SCHEDULES.**



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- FOUNDATION PLAN NOTES:**
1. TYPICAL FLOOR CONSTRUCTION IS 4" CONCRETE SLAB-ON-GRADE WITH #3@18"OC EW. CHAIRMED TO END-DEPTH.
 2. TYPICAL FOUNDATION CONSTRUCTION IS 8" CONCRETE FOUNDATION WALLS ON CONTINUOUS SPREAD FOOTINGS.
 3. FOOTINGS HAVE BEEN DESIGNED PER GEOTECH RECOMMENDATIONS FOR BEARING ON STRUCTURAL FILL.
 4. SUBMIT REPORT FOR SUBGRADE PREPARATION INCLUDING OVER-EXCAVATION & STRUCTURAL FILL REQUIREMENTS.
 5. CONTINUOUS FOUNDATION WALLS HAVE BEEN DESIGNED TO SPAN LOCAL ANOMALIES RESULTING IN AN UNDESIRABLE LENGTH OF WALL FOR THE GEOTECH REPORT. RE-DESIGN TO AVOID.
 6. TYPICAL STOP PACK IS (3/16X2 PL NO2, UNO. RE: TYPICAL DETAILS FOR BUILT-UP STOP PACK NAILING IN.
 7. RE: TYPICAL DETAILS FOR FOOTING STEP.
 8. RE: PLAN FOR T/F/TG ELEVATIONS.
 9. RE: S-0.1 TO S-0.3 FOR DESIGN CRITERIA, GENERAL NOTES, & LOAD CASES.
 10. RE: S-0.4 TO S-0.6 FOR TYPICAL DETAILS.
 11. RE: S-0.7 FOR FOOTING SCHEDULE.
 12. RE: S-0.8 TO S-0.9 FOR SHEAR WALL, HOLDOWN, RETAINING WALL, & BASE PLATE SCHEDULES.

ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) – GRAVITY BED SYSTEM – WITH SPECIFIC BOCC-APPROVED SETBACKS

OWNER: GREGORY HOPE ADDRESS: LOTS 9 AND 10, AURUM STREET, OPHIR, CO (PARCEL 477935301009)

THE FOLLOWING IS THE PROCESS FOR DEVELOPING A SEPTIC SYSTEM IN SAN MIGUEL COUNTY
(THIS IS ALSO SHOWN ON THE SMC OWTS PERMIT APPLICATION).
1. THE INSTALLED OWTS MUST BE VISUALLY INSPECTED BY SAN MIGUEL COUNTY AND BY THE DESIGN PE PRIOR TO BACKFILLING.
2. THE APPLICANT MUST NOTIFY SMC PLANNING AND BUILDING DEPARTMENT SITE INSPECTOR AT 970-728-3923 72 HOURS IN ADVANCE OF REQUIRED INSPECTIONS.
3. SURFACE ACTIVITY: ACTIVITY OR USE ON THE SURFACE OF THE GROUND OVER ANY PART OF THE OWTS MUST BE RESTRICTED. THE SOIL TREATMENT AREAS MUST NOT BE SUBJECT TO DAMAGE OR SOIL COMPACTION FROM LIVESTOCK, VEHICULAR TRAFFIC, RECREATIONAL USE, OR OTHER SITE DEVELOPMENT ACTIVITY. CONSTRUCTION EQUIPMENT NOT NECESSARY TO INSTALL THE OWTS MUST BE KEPT OFF OF THE SOIL TREATMENT AREAS TO PREVENT UNDESIRABLE COMPACTION OF THE SOILS.
THE SOIL TREATMENT AREAS MUST BE PROTECTED FROM DISTURBANCE, COMPACTION, OR DAMAGE BY MEANS OF STAKING, FENCING, POSTING, OR OTHER EFFECTIVE METHODS. IF COMPACTION OCCURS, THE DISTURBED OR COMPACTED SOIL MUST BE RE-EVALUATED AND/OR NEW SOIL EVALUATION PERFORMED. THE SYSTEM MUST BE REDESIGNED IF THE SOIL PERMEABILITY HAVE CHANGED.

GENERAL NOTES:

1. THIS ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS) SHALL MEET BOTH THE STATE OF COLORADO AND SAN MIGUEL COUNTY REQUIREMENTS. INCLUDED IN THAT REQUIREMENT ARE PERIODIC CONSTRUCTION INSPECTIONS BY THE SAN MIGUEL COUNTY ENVIRONMENTAL HEALTH DEPARTMENT. THE INSTALLED SYSTEM MUST BE CERTIFIED (BY A PROFESSIONAL ENGINEER) THAT IT HAS BEEN CONSTRUCTED PER THE DESIGN REQUIREMENTS. WHEN CONSTRUCTION IS SET TO BEGIN, NOTIFY THE COUNTY AND VERIFY THE PHASES OF INSPECTION THAT THE COUNTY WILL REQUIRE TO SATISFY CERTIFICATION. DO NOT BACKFILL ANY PORTIONS OF THE SYSTEM WITHOUT PRIOR APPROVAL FROM THE COUNTY. PRIOR TO CONSTRUCTION, NOTIFY SAN MIGUEL COUNTY TO INSURE THAT ALL NECESSARY PERMITS HAVE BEEN OBTAINED.
2. AS PART OF THE CERTIFICATION, THE CONTRACTOR SHALL ACCURATELY MAP THE AS-BUILT OWTS LOCATION BY LOCATING ALL ACCESS RISER LIDS, INSPECTION PORTS, AND ANY OTHER APPURTENANCES AND IT SHALL ALL BE REFERENCED TO THE PROPERTY LINE AND BUILDING CORNERS. THAT INFORMATION MUST BE PROVIDED TO THE ENGINEER. THE ENGINEER WILL USE THE SURVEYED DATA AS PART OF THE AS-BUILT AND CERTIFICATION OF THE SYSTEM.
3. FOR INFORMATION NOT SPECIFICALLY NOT LISTED IN THESE PLANS, REFER TO THE STATE REGULATIONS ENTITLED: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT Water Quality Control Commission ON-SITE WASTEWATER TREATMENT SYSTEM REGULATION REGULATION #43
5 CCR 1002-4.3, EFFECTIVE 4-30-2018. THE STATE REGULATIONS HAVE BEEN FURTHER AMENDED BY SAN MIGUEL COUNTY ON 5-16-18 AND MADE EFFECTIVE ON 6-29-18. THE CONTRACTOR SHOULD REFER TO THE SAN MIGUEL COUNTY WEBSITE FOR THE FULL REGULATIONS BECAUSE SAN MIGUEL COUNTY DIFFERS SLIGHTLY FROM THE STATE REGULATIONS.

THESE PLANS MAY REFER TO DIFFERENT TABLES OR SECTIONS OF THE ABOVE REGS AND WILL SIMPLY BE REFERRED TO AS REG. 43.

4. THE LOCATION OF ALL EXISTING UTILITIES ARE APPROXIMATE. AT LEAST TWO FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (1-800-922-1987 OR 811) FOR LOCATES. IF A DISCREPANCY EXISTS THAT WILL AFFECT THE INSTALLATION OF THE OWTS, NOTIFY THE ENGINEER.
5. ALL TRENCHES AND EXCAVATIONS SHALL MEET THE CURRENT OSHA REQUIREMENTS.
6. ALL EFFLUENT TRANSPORT PIPE SHALL BE SCH 40 WITH CLASS B BEDDING, INSTALLED AT A MINIMUM SLOPE OF 2%, INCLUDING FROM THE HOUSE TO THE PRIMARY TANK, FROM THE PRIMARY TANK TO THE CHAMBERS, AND FROM ONE ROW OF CHAMBERS TO THE NEXT. ALL PIPE SHALL BE PLUMBED WITH SANITARY SEWER FITTINGS (SWEEPS) AND NOT HARD ANGLES.
7. THIS OWTS IS A NEW GRAVITY SYSTEM. THE EXISTING SYSTEM WILL BE ABANDONED IN PLACE.
8. THE REQUIRED SIZE OF THE NEW PRIMARY SEPTIC TANK FOR THIS 2-BEDROOM HOUSE IS A 2-COMPARTMENT 1000 GALLON INFILTRATOR IM-1060 TANK. RISERS TO EXTEND THE ACCESS LIDS TO THE SURFACE AND ANY OTHER ACCESSORIES SHALL BE BY INFILTRATOR TO ENSURE A PROPER FIT/SEAL/. INSTALL PER MANUFACTURER'S DIRECTIONS. IF THE OWNER/CONTRACTOR WOULD LIKE TO SUBSTITUTE WITH A DIFFERENT STATE-APPROVED TANK, THE REQUEST MUST BE MADE IN WRITING TO BE CONSIDERED AND A CUT SHEET MUST BE PROVIDED. NO SUBSTITUTIONS WILL BE ALLOWED UNLESS THERE IS A WRITTEN APPROVAL FROM THE ENGINEER.
9. A 24-HOUR WATER LEAK TEST IS REQUIRED FOR ALL MIDDLE SEAM POLY TANKS (LIKE THE INFILTRATOR TANKS SPECIFIED). THE CONTRACTOR SHALL COORDINATE THAT TEST WITH SAN MIGUEL COUNTY.
10. AN EFFLUENT FILTER (POLYLOK PL-68) SHALL BE INSTALLED ON THE OUTFALL OF THE PRIMARY TANK. THIS NOT ONLY PREVENTS LARGE PIECES OF SEWAGE TO FLOW INTO THE FIELD, BUT PROVIDES THE OWNER AN EASY WAY TO CHECK ON THE TANK FOR MAINTENANCE PURPOSES.
11. THE EFFLUENT WILL BE DISTRIBUTED EQUALLY TO THE BED SYSTEM VIA A 6-HOLE TUF-TITE DISTRIBUTION BOX. THE UPPER INVERT IN THAT BOX IS FROM THE TANK AND THE 4 LOWER INVERTS WILL BE PLUMBED TO EACH LATERAL IN THE FIELD. THE EXTRA 6TH HOLE SHALL BE PLUGGED PER MANUFACTURER'S DIRECTIONS. EXTEND THE LID TO THE SURFACE.
12. THE EFFLUENT FROM THE D-BOX WILL BE PLUMBED TO THE QUICK4 PLUS STANDARD LOW PROFILE INFILTRATOR CHAMBERS ALL-IN-ONE END CAPS. THE CHAMBERS ARE MANUFACTURED BY INFILTRATOR WATER TECHNOLOGIES.
13. AN OBSERVATION PORT MUST BE INSTALLED IN THE LAST CHAMBER OF EACH OF THE FOUR LATERALS. THESE OBSERVATION PORTS SHALL EXTEND TO THE FINAL GRADE SURFACE. THIS PORT SHALL CONSIST OF A TEE RESTING ON THE GROUND (AT THE INFILTRATIVE LAYER) AND EXTENDING UP THROUGH THE CHAMBER'S OBSERVATION PORT HOLE. THE TEE WILL PREVENT THE PIPE FROM BEING PUSHED INTO THE GROUND BELOW. AFTER CONSTRUCTION IS COMPLETE (FINAL GRADE FINISHED), CUT THE RISERS DOWN TO GRADE, INSTALL A LOOSE FITTING PVS CAP, AND COVER THESE RISERS WITH A STANDARD PLASTIC IRRIGATION BOX SET 1" ABOVE FINAL GRADE. THESE OBSERVATION PORTS CAN BE OPENED IN THE FUTURE TO LOOK INTO THE BOTTOM OF THE CHAMBERS FOR MAINTENANCE PURPOSES AND AID IN LOCATING THE EXTENT OF THE LEACH FIELD.
14. SINCE THIS IS A BED SYSTEM, ALL CHAMBERS SHALL BE INSTALLED LEVEL. ONCE THE GROUND IS LEVELED FOR INSTALLATION OF THE CHAMBERS, LOOSELY SCARIFY (WITH A RAKE) THE NATIVE SOIL PRIOR TO INSTALLATION OF THE CHAMBER TO INSURE THAT THE SOIL HASN'T BEEN SMEARED OR COMPACTED DURING EXCAVATION. SMEARING MAY INHIBIT PROPER ABSORPTION AND SHOULD BE AVOIDED. WHEN BACKFILLING, LOOSELY COMPACT THE SIDES OF THE CHAMBERS. LOOSE COMPACTION WILL ALLOW FOR ABSORPTION INTO THE SOIL VIA THE SIDE LOUVERS ON THE CHAMBERS. TIGHT COMPACTION WILL INHIBIT SIDE-ABSORPTION.
15. THE FOLLOWING MINIMUM OFFSETS MUST BE MET (TABLE 7-1) WITH THE EXCEPTIONS, AS NOTED, UNDER BOCC (BOARD OF COUNTY COMMISSIONERS) RESOLUTION 2022-022:
 - a. THE CLOSEST PORTION OF THE FIELD SHALL BE 25' (min.) FROM THE POTABLE WATERLINE, 2' FROM WEST AND SOUTH PROPERTY LINE (ALLOWED BY BOCC), 10' FROM THE STRUCTURE, AND 5' FROM A SEPTIC TANK.
 - b. IN ADDITION TO THE ABOVE, THE TANKS SHALL BE AT LEAST 5' FROM THE HOUSE, 2' FROM WEST PROPERTY LINE (ALLOWED BY BOCC), 10' FROM OTHER PROPERTY LINES AND 10' FROM THE POTABLE WATERLINE.

NOTE THAT THE BOCC RESOLUTION ONLY ALLOWS SMALLER SETBACKS IF THE PVC LINER "CURTAIN" IS ALSO INSTALLED AS SHOWN ON THESE PLANS. INSTALL AND BURY THE LINER PRIOR TO INSTALLATION OF THE CHAMBERS.

16. ALL RISERS, MANHOLE LIDS, INSPECTION PORTS, AND CLEAN-OUTS SHALL BE EXPOSED TO THE SURFACE.

17. THE HOMEOWNER SHOULD BE FAMILIAR WITH SEPTIC TANK SYSTEMS AND FOLLOW COMMON PRACTICES TO EXTEND THE LIFE OF THE SYSTEM. THESE INCLUDE, BUT ARE NOT LIMITED TO, CHECKING TO SEE IF THERE ARE LEAKY FAUCETS CONTRIBUTING TO THE DAILY VOLUME, MINIMIZING OR ELIMINATING CARBAGE DISPOSALS, NOT FLUSHING GREASE, OILS, OR OTHER NON-BIODEGRADABLE OR HAZARDOUS ITEMS INTO THE SYSTEM. THE BACTERIA MUST REMAIN ACTIVE TO KEEP THE SYSTEM HEALTHY. ONLY LOW-FLOW FIXTURES SHOULD BE CONSIDERED FOR THE HOME.

SOILS ANALYSIS:

1. THE SOILS ANALYSIS WAS DONE USING VISUAL AND TACTILE METHODS. THE ANALYSIS WAS PERFORMED BY DAVID BALLODE, P.E. OF UNCOMPAGHRE ENGINEERING, QUALIFIED TECHNICIAN PER REG. 43. THE TEST HOLES AND PROFILES WERE DUG WITH A MINI-EXCAVATOR (TOBY WITH ACM EXCAVATION) ON 10-15-21. LISA GARRETT WITH SAN MIGUEL COUNTY WAS ALSO PRESENT.

2. ONE 8' SOILS PROFILE (SP1) WAS DUG AND NO BEDROCK OR WATER WAS ENCOUNTERED. TWO OTHER TEST HOLES (TP 1 AND TP 2) WERE DUG AND ALL HOLES WERE CONSISTENT.

3. THE SOILS TYPE FOR THE INFILTRATIVE LAYER WAS DETERMINED TO BE TYPE 1 (LOAMY SAND) WITH AN LTAR OF 0.8 (TABLE 10-1). NO ADJUSTMENTS DUE TO ROCK WERE NECESSARY PER TABLE 10-1A.

OWTS FIELD – SIZE CALCULATIONS

1. THE HOUSE IS A 2-BEDROOM HOUSE. EACH BEDROOM CONTRIBUTES 150 GPD FOR A TOTAL OF 300 GPD (TABLE 6-1).

2. USING THE LTAR OF 0.8, THE ABSORPTION AREA = 300/0.8 = 375 SF, UNADJUSTED.

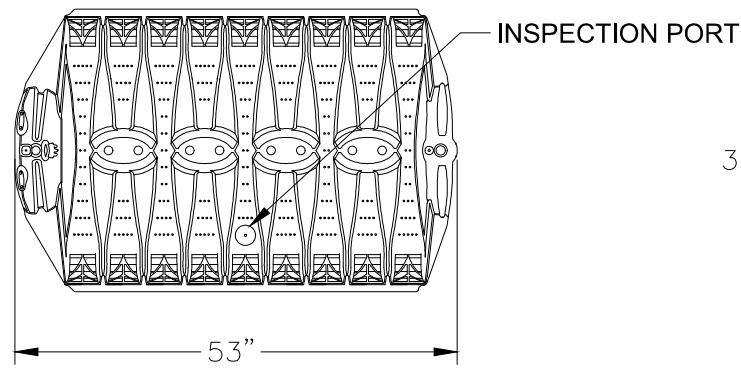
3. AN ADJUSTMENT FACTOR OF 0.7 IS ALLOWED FOR CHAMBERS (TABLE 10-3), SO (375 SF)*(0.7) = 262 SF.
AN ADJUSTMENT FACTOR OF 1.2 MUST BE APPLIED FOR A BED SYSTEM, SO (262 SF) * (1.2) = 314 SF.

4. A CHAMBER IS RATED FOR 12 SF OF ABSORPTION AREA. 314 SF/26 CHAMBERS, THE BED IS DESIGNED TO BE 4 ROWS, 3 OF THOSE ROWS HAVING 7 CHAMBERS AND ONE HAVING 6, FOR A TOTAL OF 27 CHAMBERS. THE EFFLUENT FROM THE PRIMARY TANK WILL GO TO A TUF-TITE DISTRIBUTION BOX WHICH WILL EVENLY DISTRIBUTE THE EFFLUENT TO EACH OF THE LATERALS.

5. THE STE WAS TOO CONSTRAINED TO ACCOMMODATE THE FIELD WITH STANDARD SETBACKS AND LEEWAY IN CERTAIN PLACES WAS GRANTED BY THE BOCC (BOARD OF COUNTY COMMISSIONERS). REFER TO THE NOTES ABOVE.

INFILTRATOR WATER TECHNOLOGIES
QUICK4 PLUS STANDARD LOW PROFILE CHAMBER
PRODUCT SPECIFICATIONS
(NOT TO SCALE)

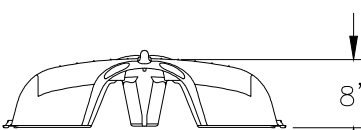
TOP VIEW



SIDE VIEW

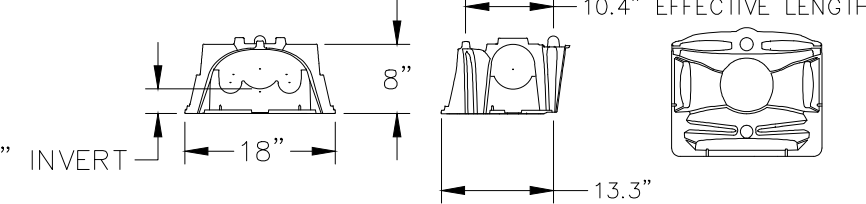


END VIEW

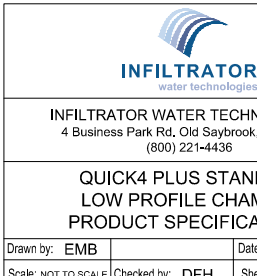
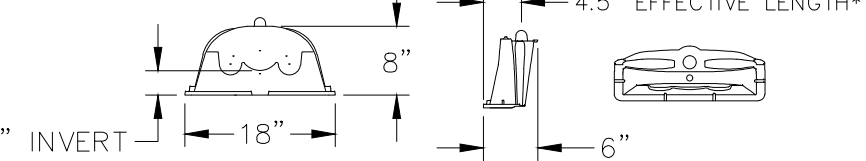


*ALL VIEWS = INSTALLED LENGTHS

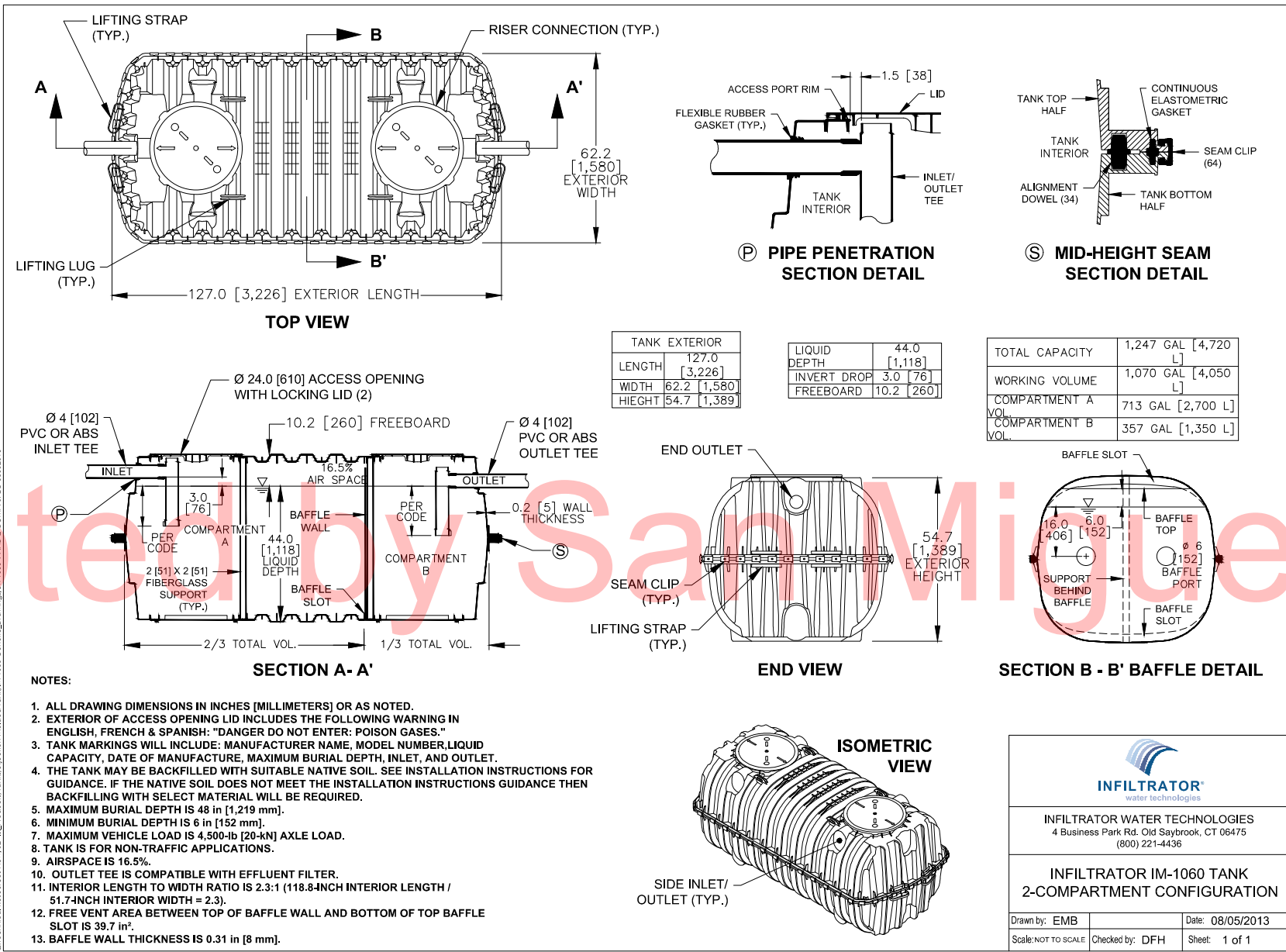
QUICK4 PLUS ALL-IN-ONE END CAP



QUICK4 PLUS END CAP



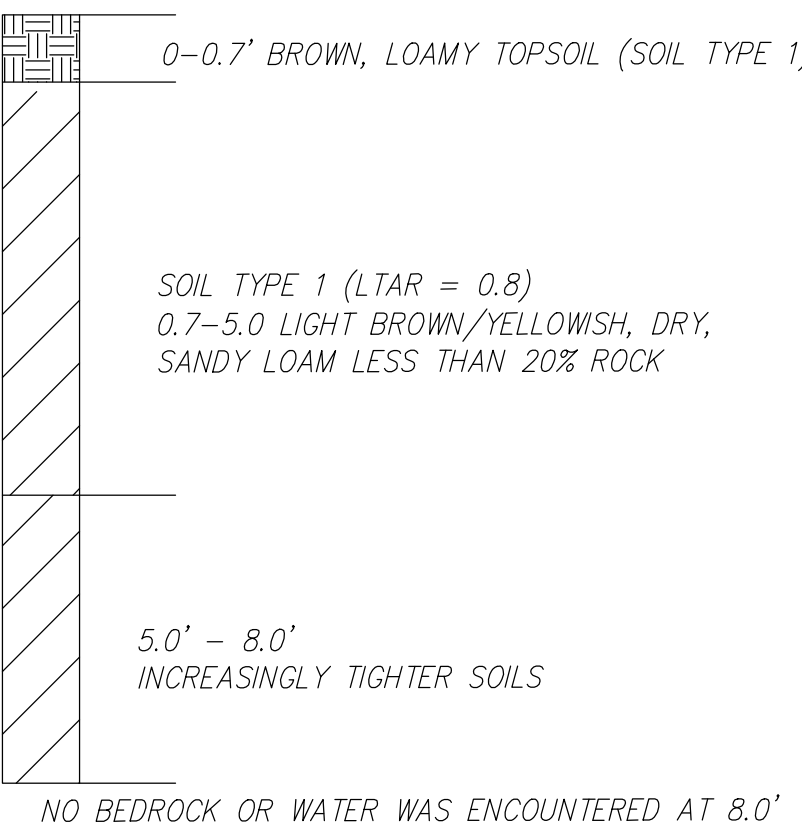
Infiltrator Q4 Plus Low Profile Chamber



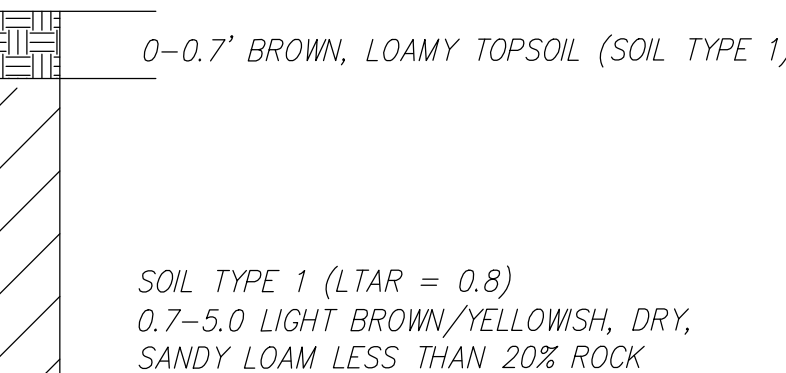
Infiltrator 1000 Gallon Primary Tank

SOILS HOLES FOR SOIL TYPE CLASSIFICATION

SOILS PROFILE (SP1)

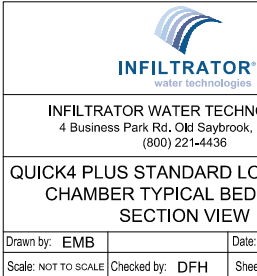
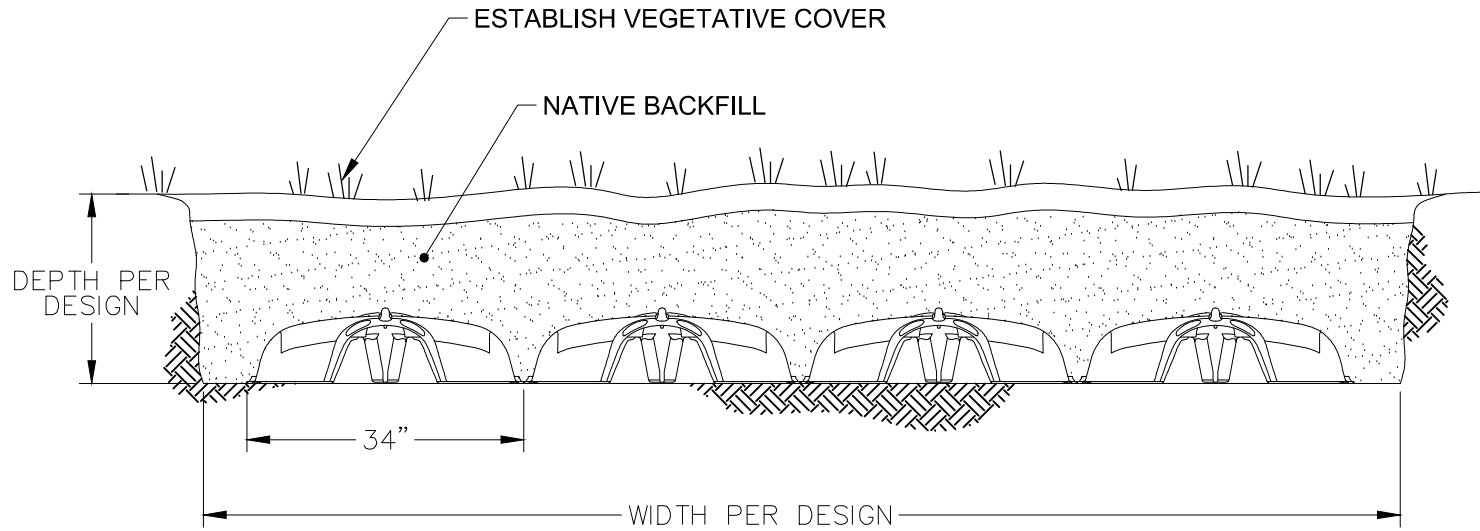


TEST PIT 1 (TP1)

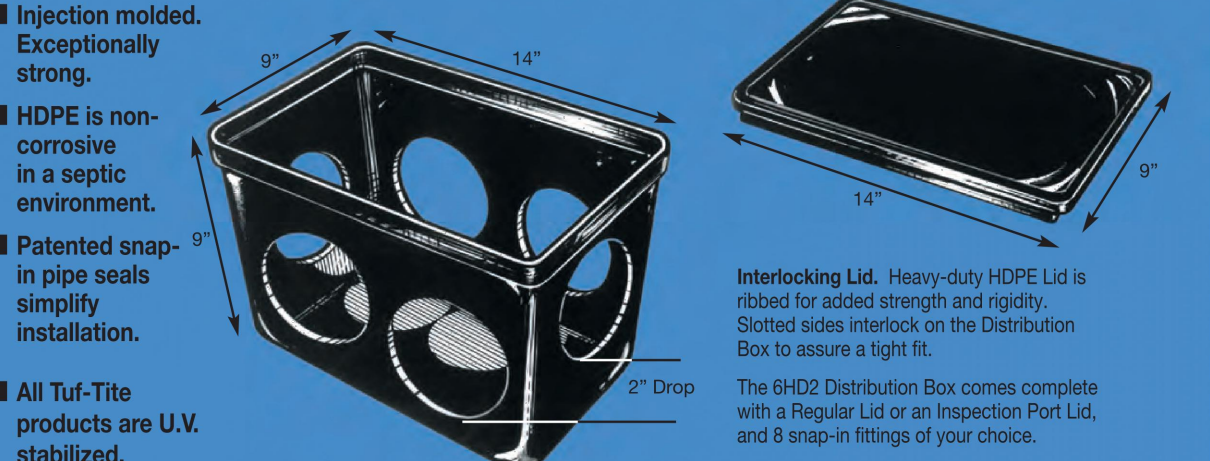


Scale: 1'=2'

INFILTRATOR WATER TECHNOLOGIES
QUICK4 PLUS STANDARD LOW PROFILE CHAMBER
TYPICAL BED DETAIL
SECTION VIEW
(NOT TO SCALE)

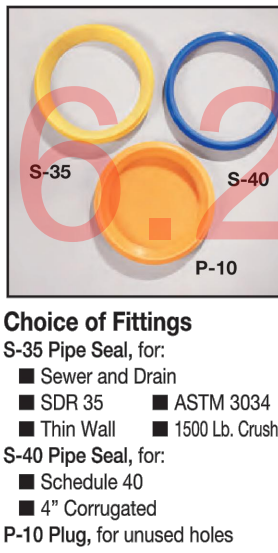


TUF-TITE
6-Hole Distribution Box 6HD2

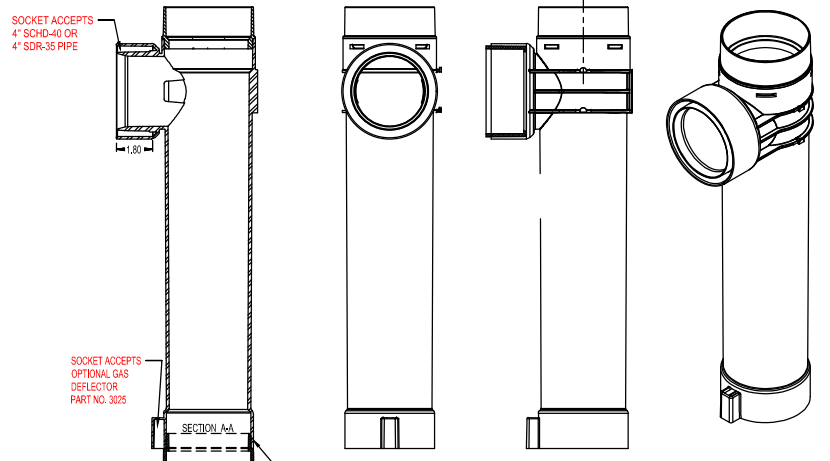


INSTALLATION IS JUST THIS SIMPLE

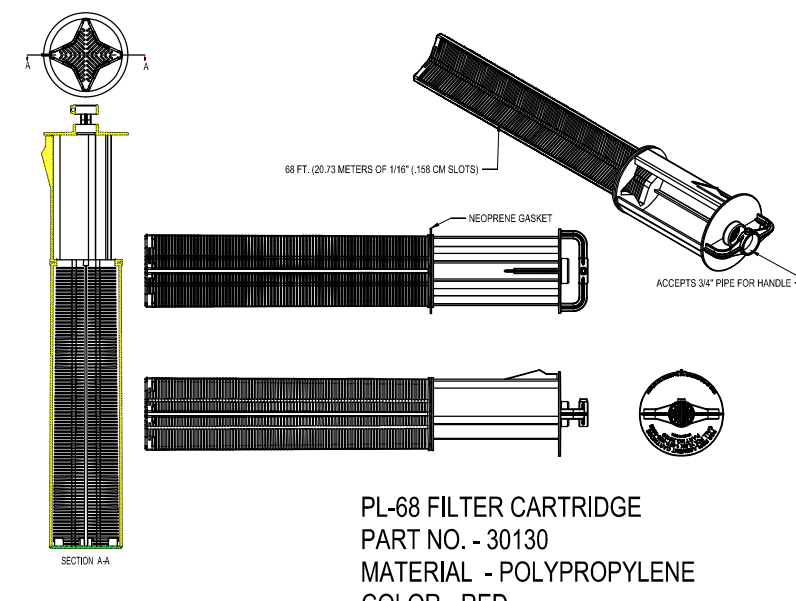
1. Position the Distribution Box on level virgin soil.
2. Install the inlet pipe and outlet pipes. Be sure the bottoms of all pipes rest on virgin soil.
3. Level the Distribution Box and all pipes as needed.
4. Backfill the pipes to within two feet of the Distribution Box. Recheck the level of the box, then backfill up to the top lid ridge.
5. Install and adjust Tuf-Tite Speed Levelers.
6. Place lid on the Distribution Box and finish backfilling.



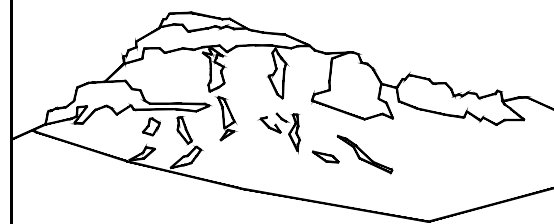
Tuf-Tite 6-Hole Distribution Box



Polylok Effluent Filter Housing



Polylok Effluent Filter



Uncompahgre
Engineering, LLC

P.O. Box 3945
Telluride, CO 81435
970-729-0683

SUBMISSIONS:

SUBMITTAL 2022-06-04
SMC Review 2022-06-27

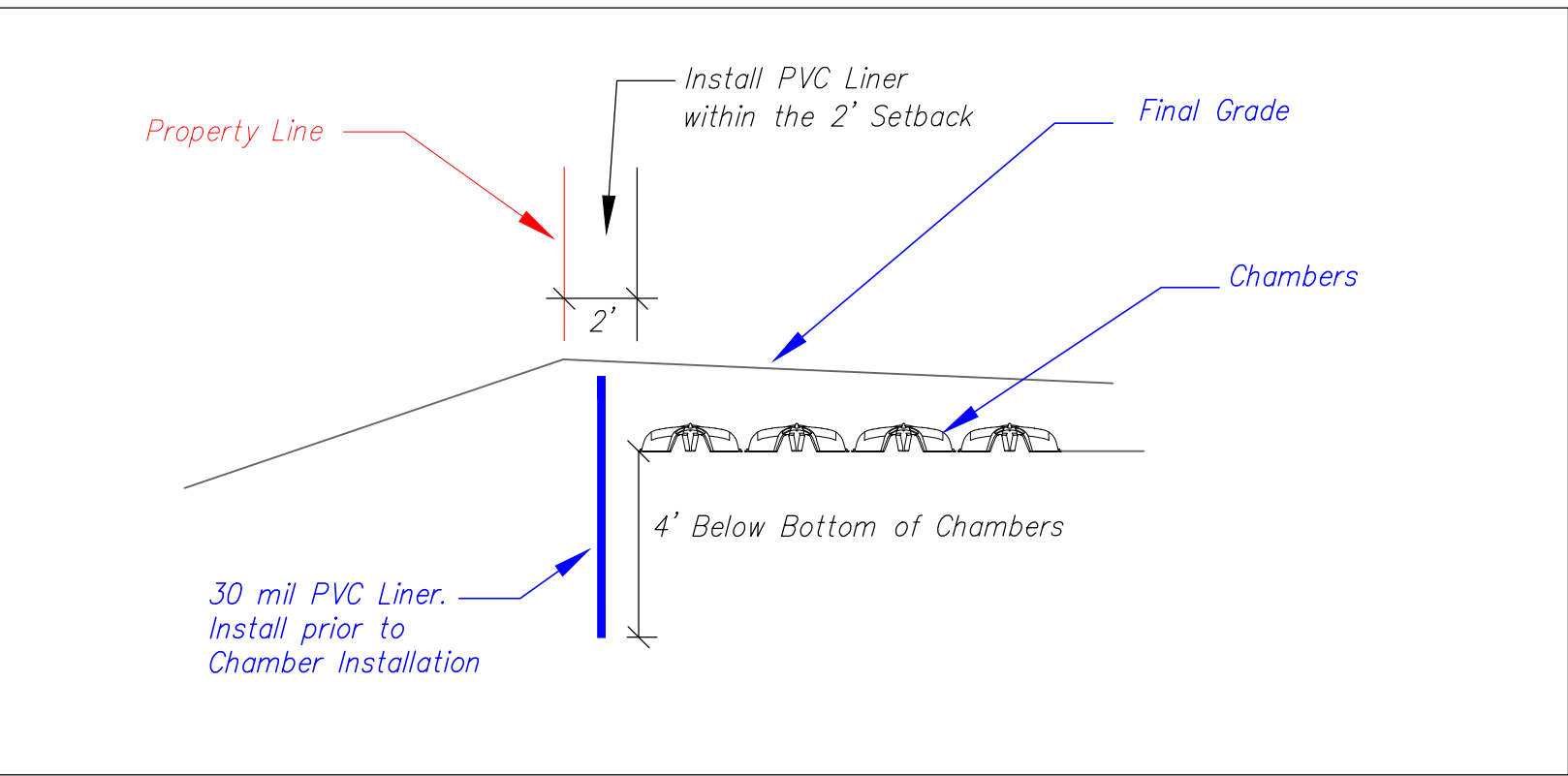
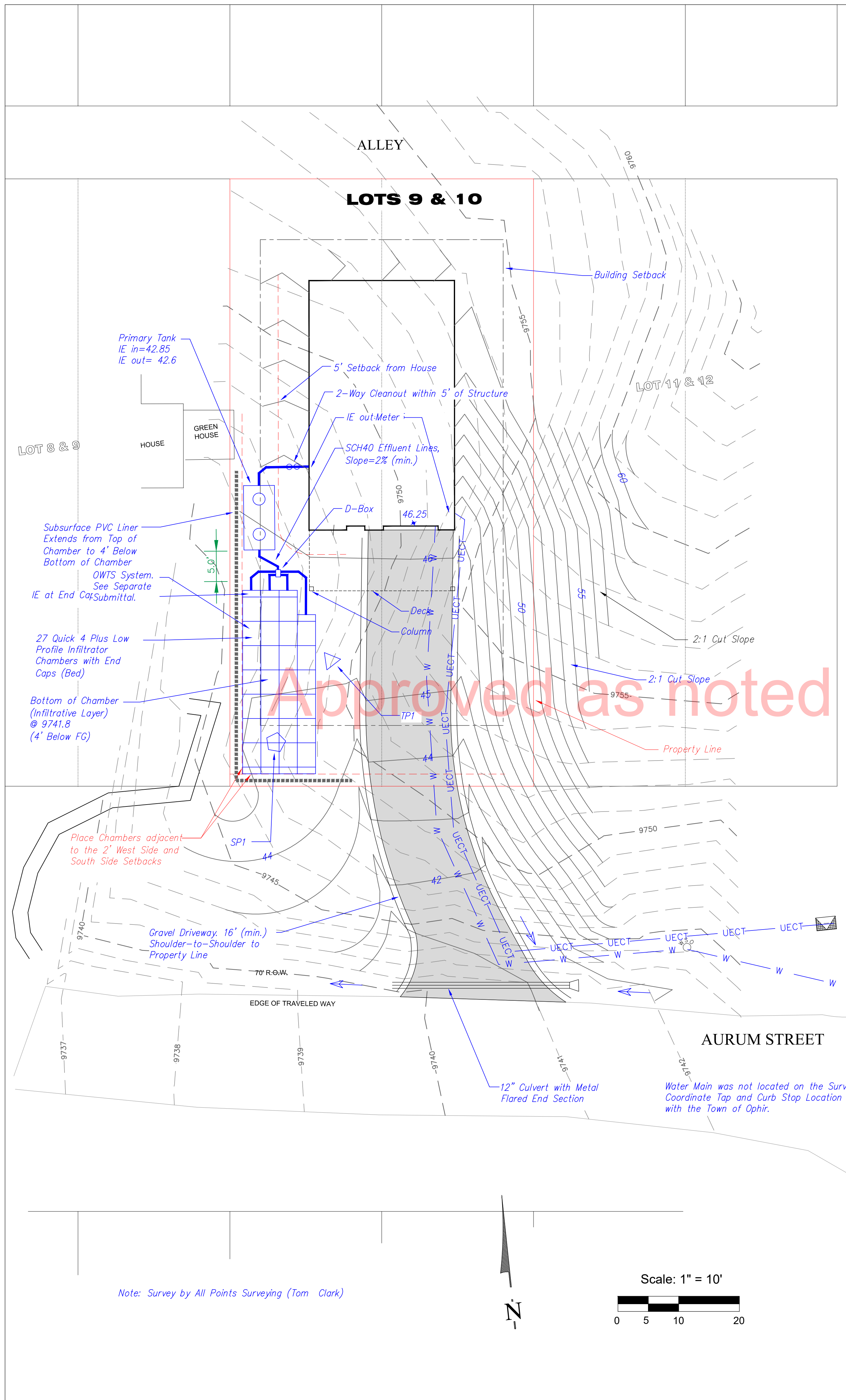
Hope Residence
Lots 9 and 10
Aurum Street
Ophir, CO



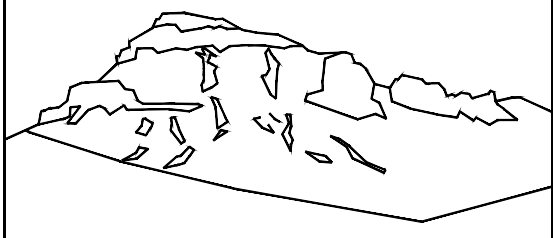
CONTRACTOR TO REVIEW AND COMPARE ALL CHAPTERS AND INTERDISCIPLINARY DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO ANY FIELD WORK BEING DONE IN ACCORDANCE WITH AIA DOCUMENT A201

On-Site
Wastewater
Treatment
System
(OWTS)

OWTS
Sheet 1 of 2



PVC Liner Section - Looking North



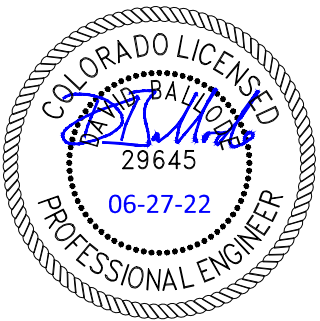
Uncompahgre
Engineering, LLC

P.O. Box 3945
Telluride, CO 81435
970-729-0683

SUBMISSIONS:

| | |
|------------|------------|
| SUBMITTAL | 2022-06-04 |
| SMC Review | 2022-06-27 |

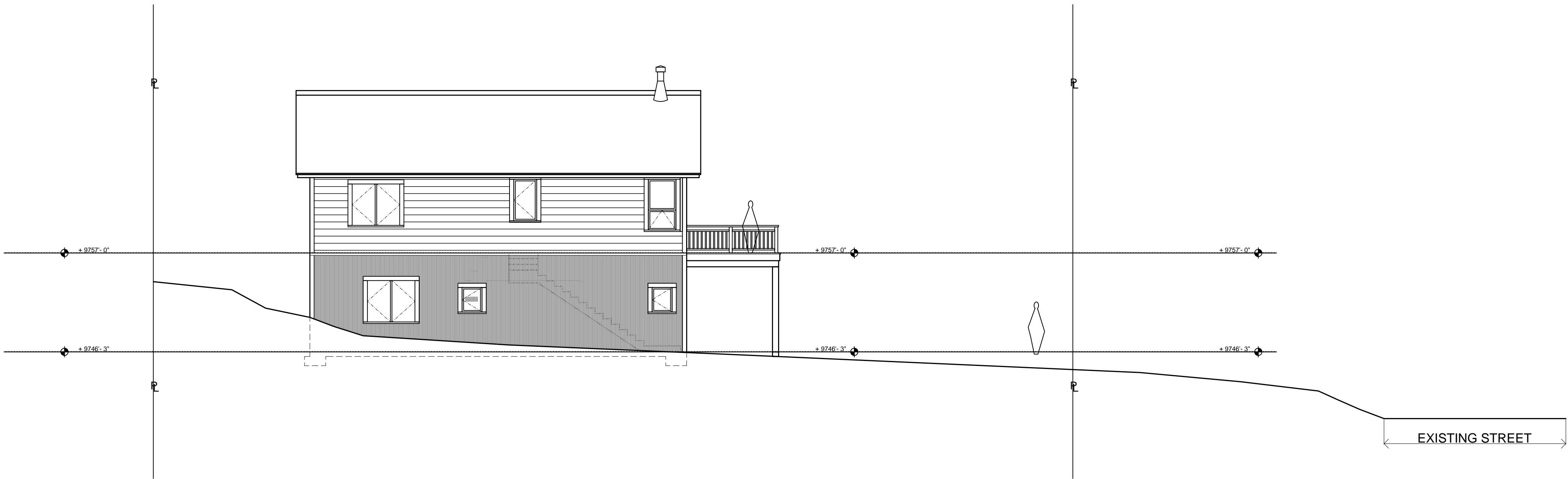
Hope Residence
Lots 9 and 10
Aurum Street
Ophir, CO



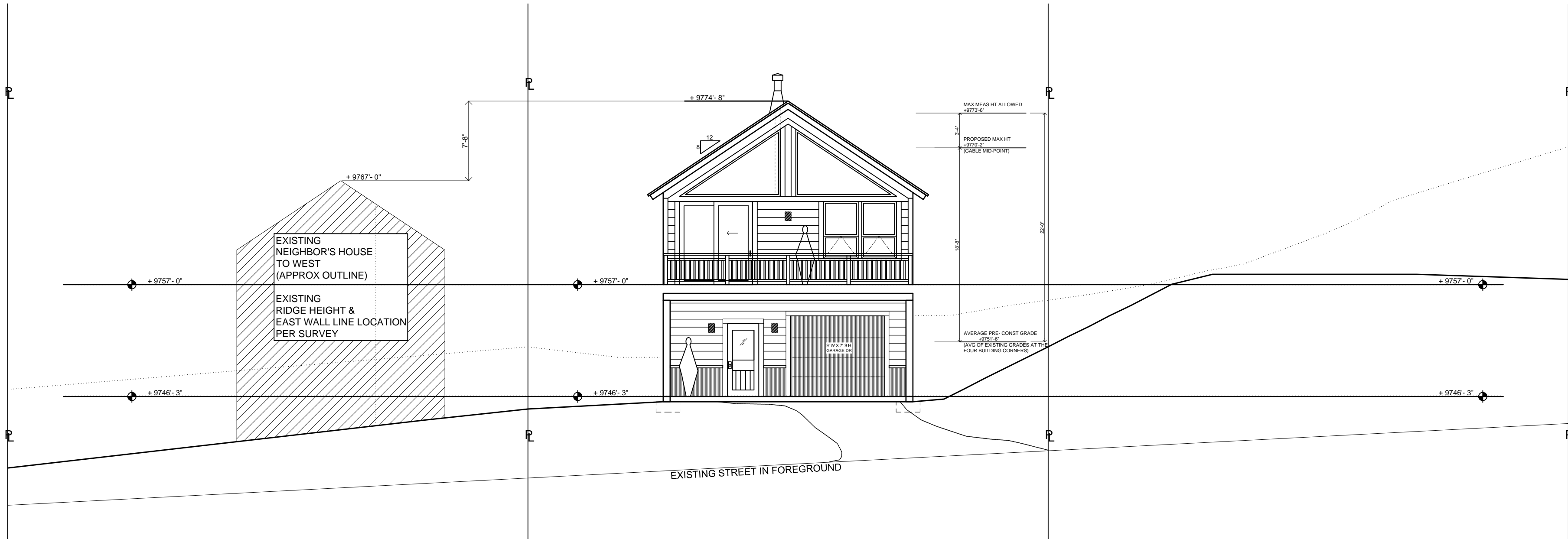
CONTRACTOR TO REVIEW AND COMPARE ALL
CHAPTERS AND INTERDISCIPLINARY DRAWINGS
AND REPORT ANY DISCREPANCIES TO THE
ARCHITECT PRIOR TO ANY FIELD WORK BEING
DONE IN ACCORDANCE WITH AIA DOCUMENT A201

On-Site
Wastewater
Treatment
System
(OWTS)

OWTS
Sheet 2 of 2



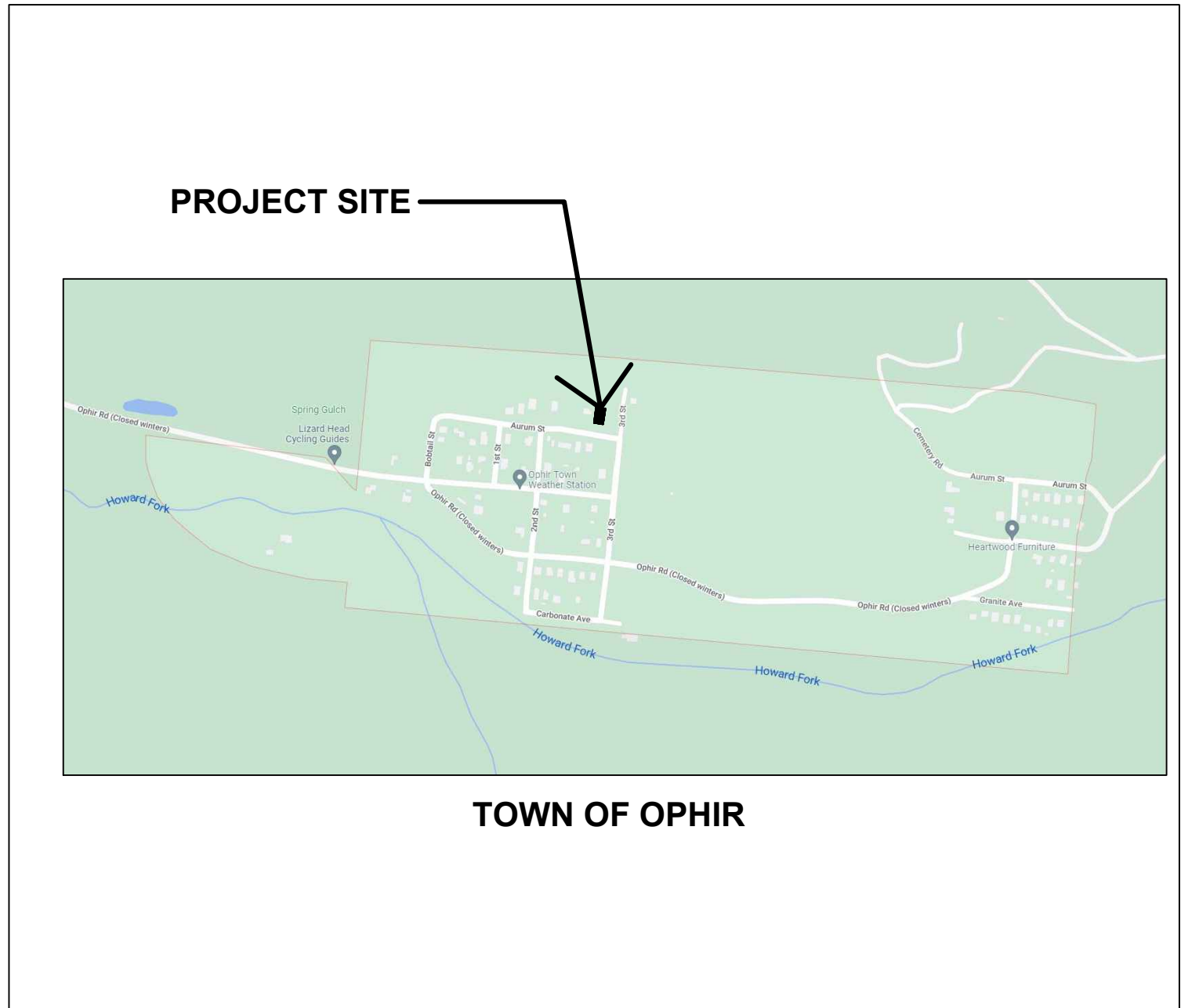
6 WEST ELEVATION - WITH PROPERTY LINES
1/8" = 1'-0"



5 SOUTH ELEVATION (STREET VIEW) - WITH PROPERTY LINES
1/8" = 1'-0"

| | | | |
|--------------------|--|------------------------------|--|
| 1. Roofing: | Metal, corrugated, non-reflective, matte finish OR Metal, Standing Seam, non-reflective, matte finish | 9. South Deck Posts: | Wood, 8 x 8, stain & sealed |
| 2. Flashing: | To match roofing finish, non-reflective, matte finish | 10. South Deck Railing: | Steel, unfinished (allow to rust) |
| 3. Siding: | Wood, horizontal, 9.25" exposure, stained & sealed | 11. Exterior Light Fixtures: | LED low wattage, with 40-watt maximum incandescent wattage equivalent, lamp source shielded from public view NOTE: Light fixtures are shown on Exterior Elevations. |
| 4. Trim: | Wood, stained & sealed | 12. Garage Door: | Metal, corrugated, vertical, to match roofing finish, non-reflective, matte finish |
| 5. Base: | Metal, corrugated, vertical, non-reflective, matte finish | 13. Stove Pipe & Cap: | To match roofing finish, non-reflective, matte finish |
| 6. Windows: | Metal clad wood, pre-finished, SDL mullions | 14. Exhaust Vents: | To match roofing, non-reflective, matte finish |
| 7. Exterior Doors: | Metal clad wood with glass lites, pre-finished, SDL mullions | | |
| 8. Entry Door: | Wood with glass lite, stained & sealed | | |

3 EXTERIOR MATERIAL NOTES



2 VICINITY MAP
NO SCALE

EXISTING PROJECT INFORMATION

LEGAL DESCRIPTION
LOTS 9 & 10, BLOCK 4, TOWN OF OPHIR,
LOCATED IN SECTION 35, T42N, R9W, N.M.P.M.
SAN MIGUEL COUNTY, COLORADO.

PROPERTY DESCRIPTION
50' X 100' VACANT LOT
5000 SQ FT

PROPOSED PROJECT INFORMATION

PROJECT DESCRIPTION:
SINGLE FAMILY RESIDENCE
NEW CONSTRUCTION
NEW SEPTIC & LEACH FIELD

PARKING
(1) ENCLOSED PKG SPACE

SETBACKS
SOUTH FRONT YARD (AURUM STREET): 42'-0"
EAST SIDE YARD: 13'-0"
WEST SIDE YARD: 13'-0"
NORTH REAR YARD: 17'-0"

BUILDING HEIGHT
+18'-8" (+22'-0" MAX ALLOWED)
AVERAGE PRE- CONST GRADE = +9751'-6"
(AVG OF EXISTING GRADES AT THE FOUR BUILDING CORNERS)

ENCLOSED SQUARE FEET
LEVEL 1 (INCLUDES GARAGE): 984.00 SF
LEVEL 2: 984.00 SF
LEVEL 3 (STOR LOFT): 76.00 SF (> 5' FT. CLG HT)
TOTAL: 2044.00 SF (2200 SF MAX ALLOWED)

LOT COVERAGE
984.00 SF (2500 SF MAX ALLOWED)

ROOF PITCH
8:12

RIDGE LENGTH MAXIMUM
44'-0" (INCLUDES EAVE OVERHANGS)

4 PROJECT INFORMATION

| DRAWING INDEX | |
|---------------|---|
| A-1.0 | Drawing Index Vicinity Map Exterior Material Notes Project Information South & West Exterior Elevations with Property Lines |
| A-1.1 | Site / Roof Plan Site Notes |
| A-2.0 | Topographic Survey (All Points Land Survey LLC) |
| A-3.0 | Floor Plans |
| A-4.0 | Exterior Elevations |
| A-5.0 | Not Used |
| A-6.0 | Building Sections |

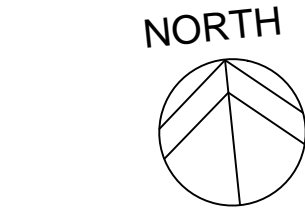
1 DRAWING INDEX

REVISED:
07-26-22
removed retaining walls,
revised contours & driveway
layout to coordinate with
Uncompahgre Engineering
grading plan,
site notes added,
off-street parking added

GREG'S HOUSE
OPHIR, COLORADO

DRAWING INDEX
VICINITY MAP
EXTERIOR
MATERIAL NOTES
PROJECT INFORMATION

SOUTH & WEST
EXTERIOR ELEVATIONS
WITH PROPERTY LINES



DATE: 03-15-2022

SCALE: AS NOTED

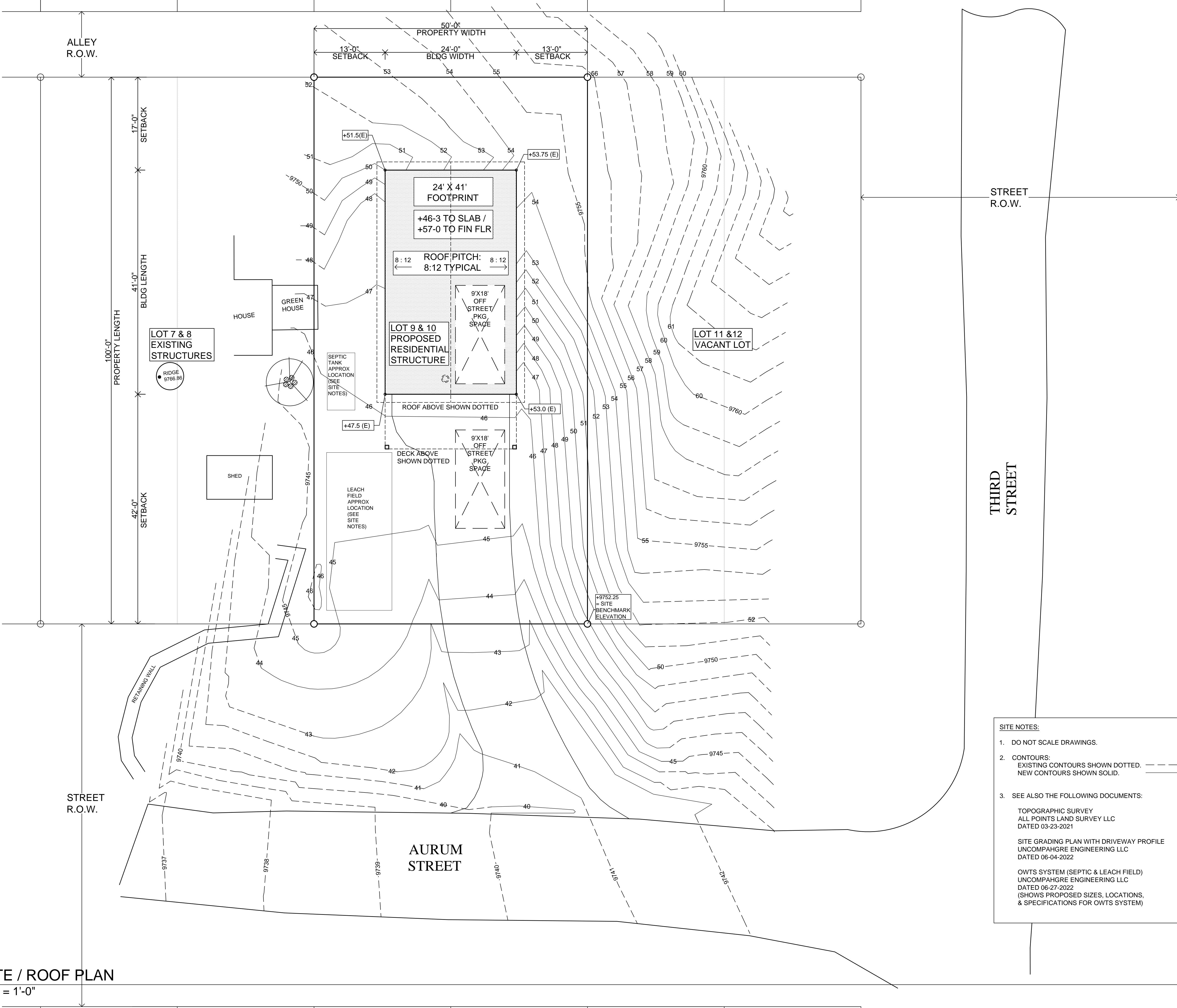
MARLA FRITZLEN
ARCHITECTURE, INC.

P.O. Box 82
Nucla, Colorado
81424

970 - 729 - 1606

www.mjfarch.com

A - 1.0

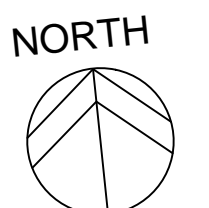


1 SITE / ROOF PLAN
1/8" = 1'-0"

REVISED:
07-26-22
removed retaining walls,
revised contours & driveway
layout to coordinate with
Uncompahgre Engineering
grading plan,
site notes added,
off-street parking added

GREG'S HOUSE
OPHIR, COLORADO

SITE / ROOF PLAN
SITE NOTES



DATE: **03-15-2022**
SCALE: 1/8" = 1'-0" U.O.N.

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81424
970 · 729 · 1606
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A - 1.1

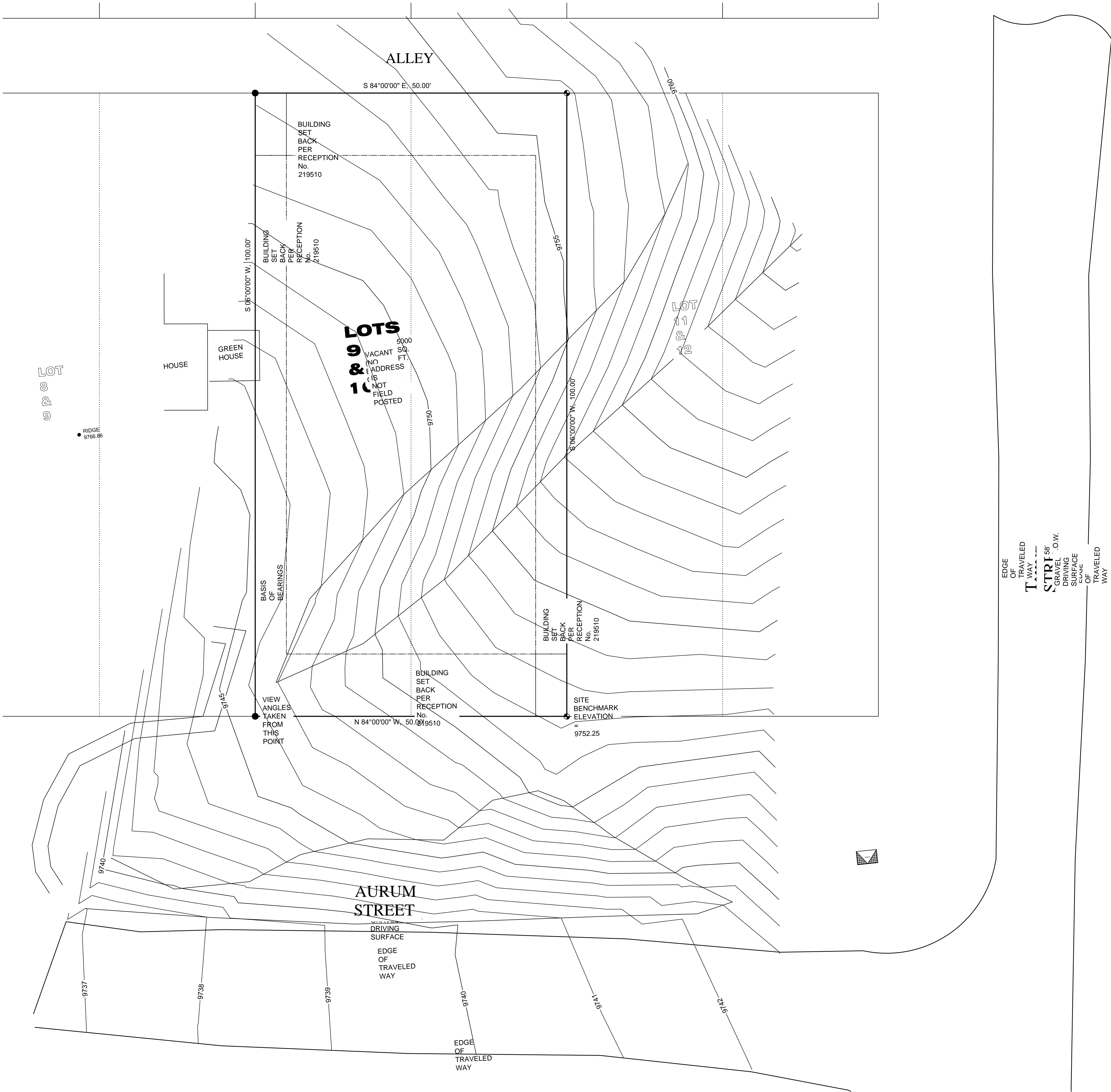
SITE NOTES:

- DO NOT SCALE DRAWINGS.
- CONTOURS:
EXISTING CONTOURS SHOWN DOTTED. ---
NEW CONTOURS SHOWN SOLID. ———
- SEE ALSO THE FOLLOWING DOCUMENTS:

TOPOGRAPHIC SURVEY
ALL POINTS LAND SURVEY LLC
DATED 03-23-2021

SITE GRADING PLAN WITH DRIVEWAY PROFILE
UNCOMPAGHRE ENGINEERING LLC
DATED 06-04-2022

OWTS SYSTEM (SEPTIC & LEACH FIELD)
UNCOMPAGHRE ENGINEERING LLC
DATED 06-27-2022
(SHOWS PROPOSED SIZES, LOCATIONS,
& SPECIFICATIONS FOR OWTS SYSTEM)

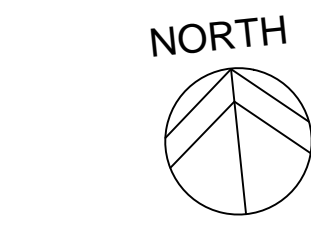


1 TOPOGRAPHIC SURVEY DATED 03-23-21 (PARTIAL VIEW)
SCALE: 1/8" = 1'-0"

SURVEYOR: ALL POINTS LAND SURVEY LLC

GREG'S HOUSE
OPHIR, COLORADO

TOPOGRAPHIC
SURVEY



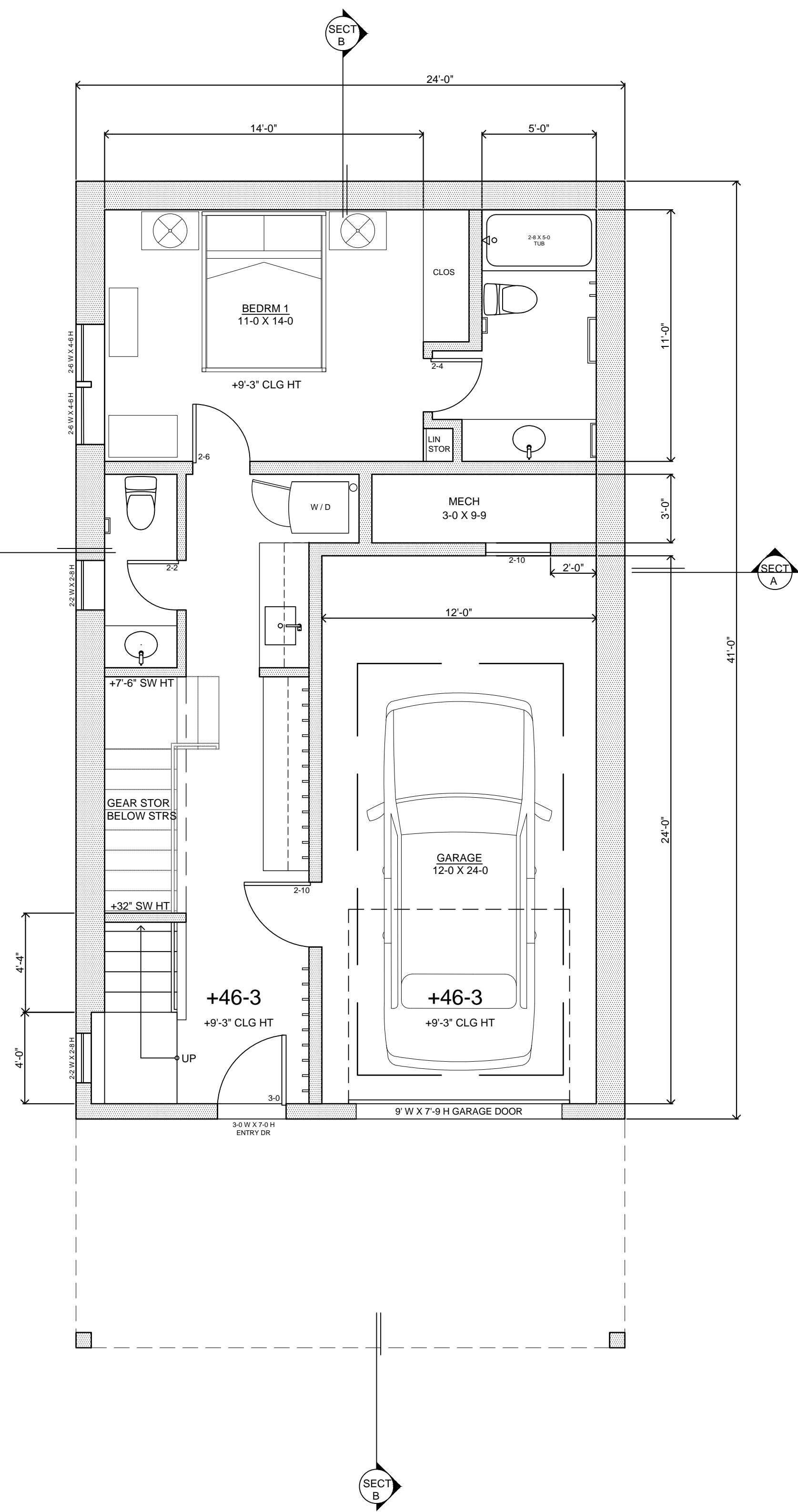
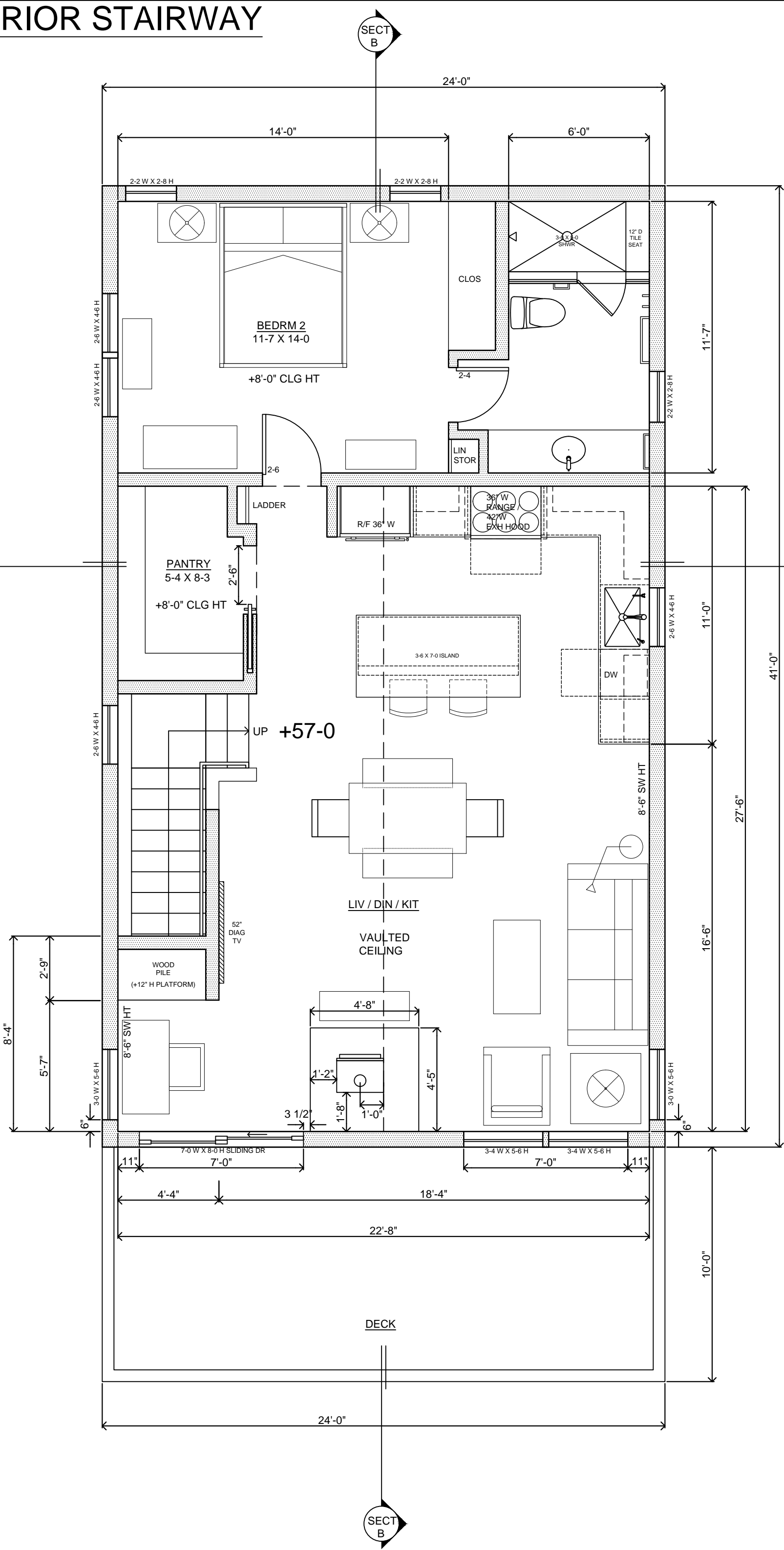
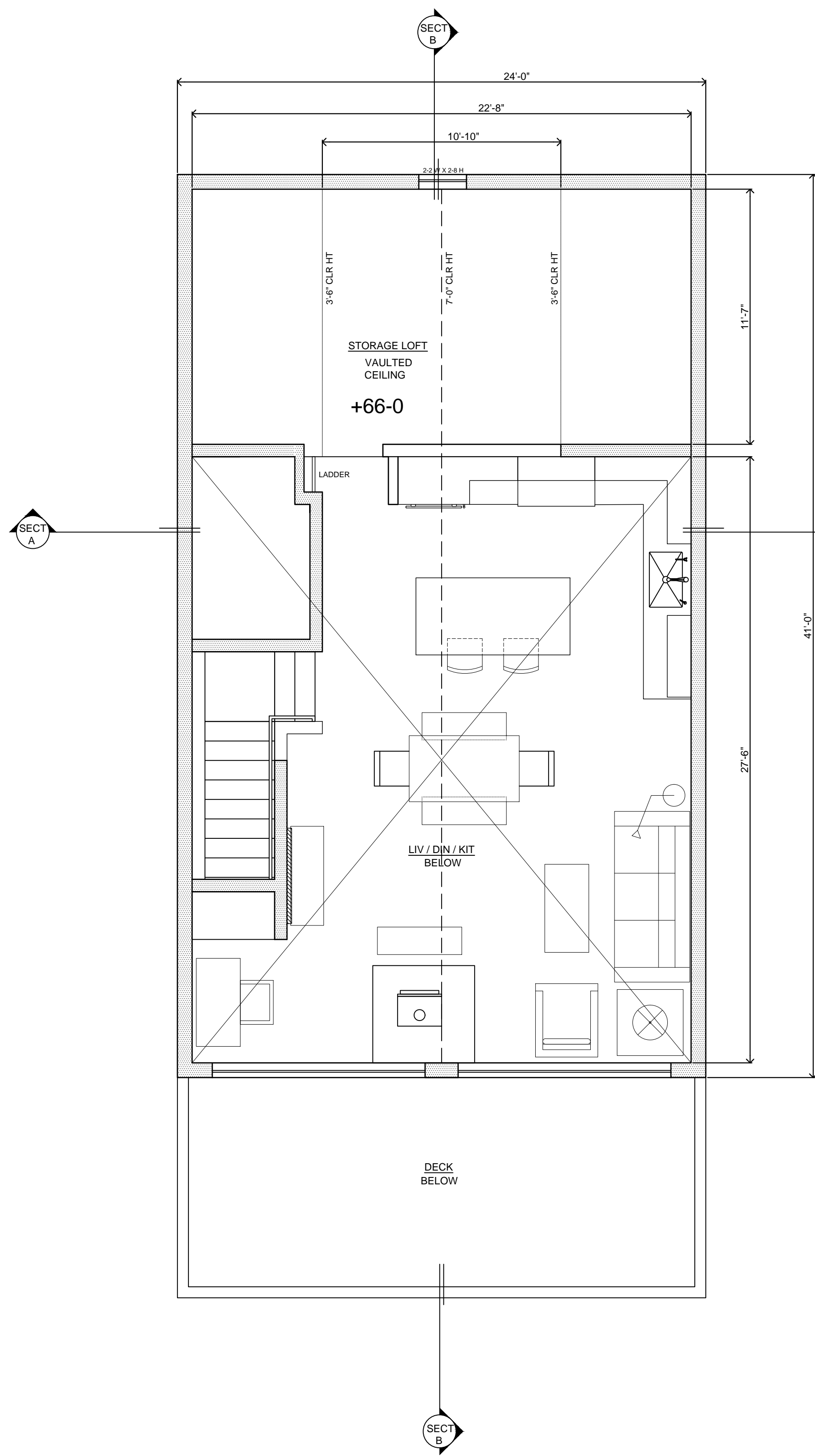
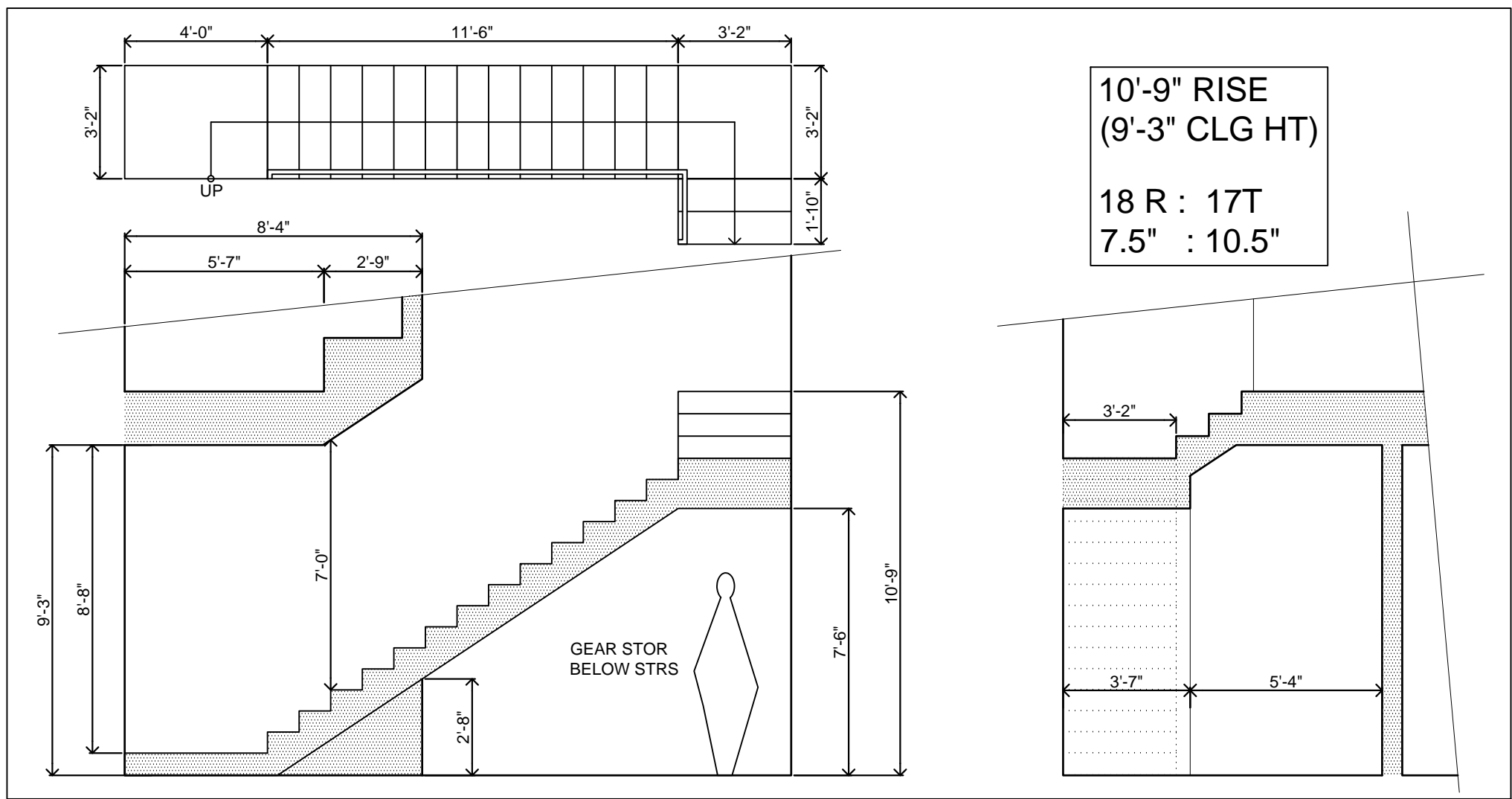
DATE: 03-15-2022

SCALE: 1/8" = 1'-0" U.O.N.

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P.O. Box 82
Nucla, Colorado
81424

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A - 2.0



REVISED:
07-26-22
removed retaining walls,
revised contours & driveway
layout to coordinate with
Uncompahgre Engineering
grading plan,
site notes added,
off-street parking added

GREG'S HOUSE
OPHIR, COLORADO

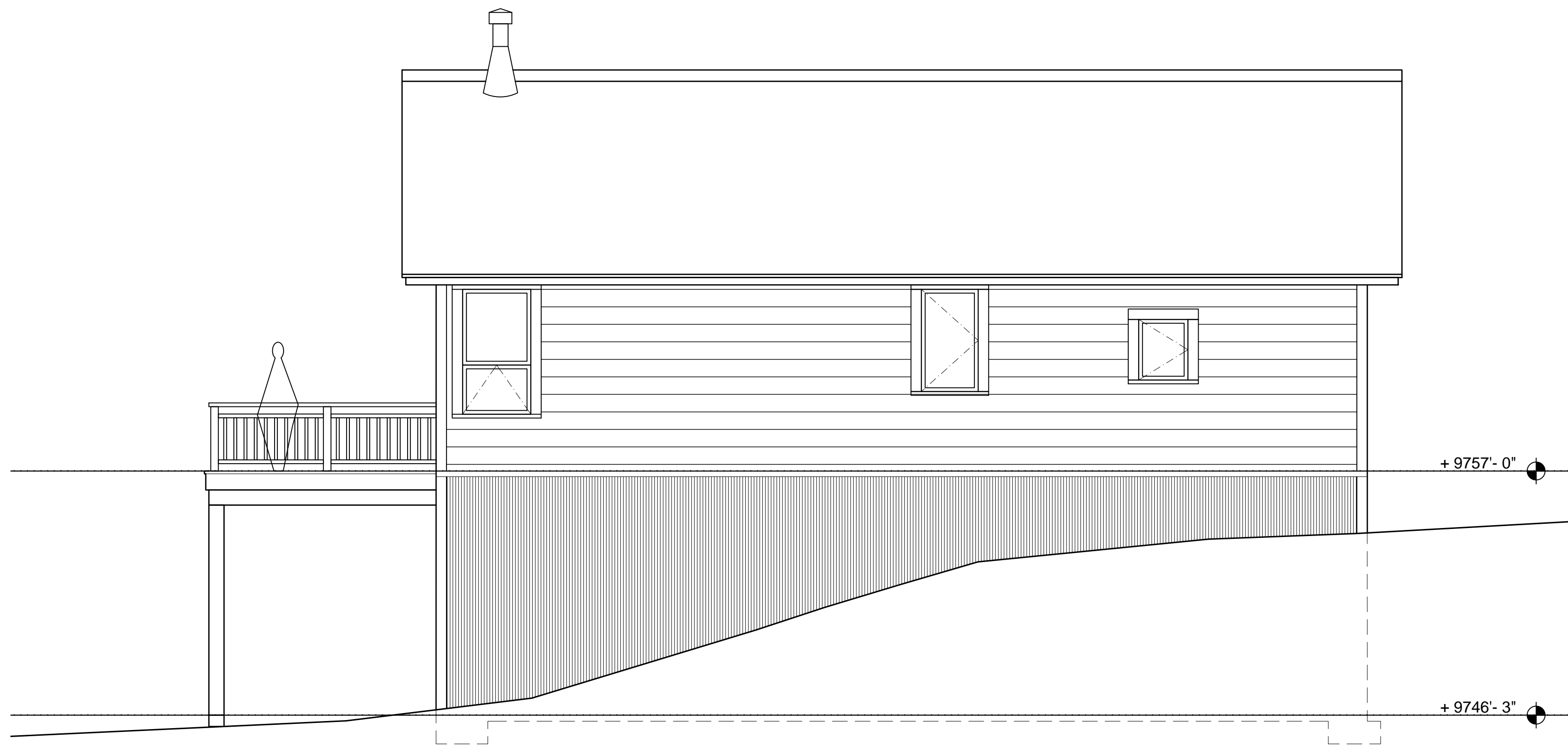
FLOOR PLANS
LEVEL 1
LEVEL 2
LEVEL 3
(STORAGE LOFT)



DATE: 03-15-2022
SCALE: 1/4" = 1'-0" U.O.N.

MARLA FRITZLEN
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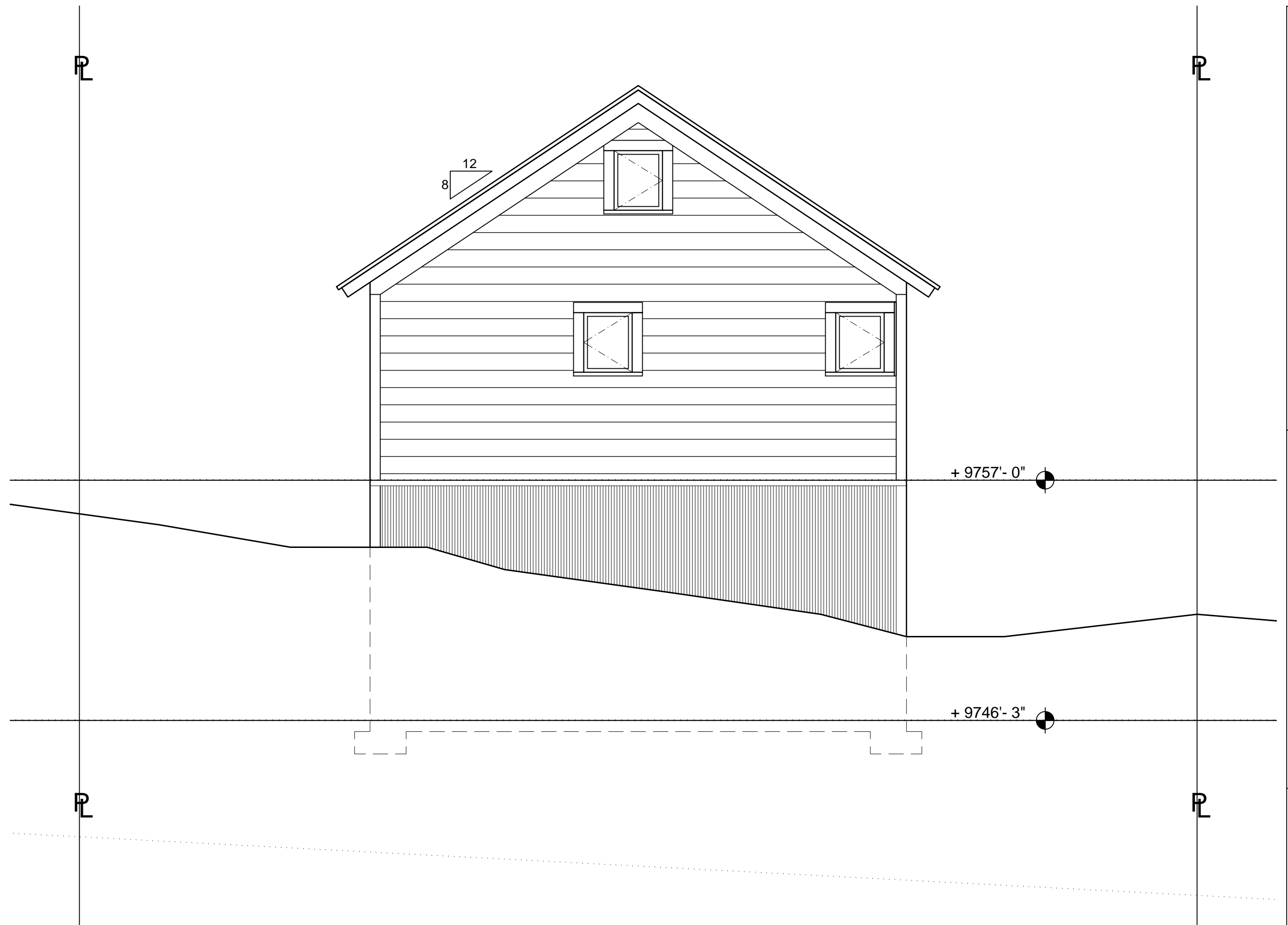
A - 3.0



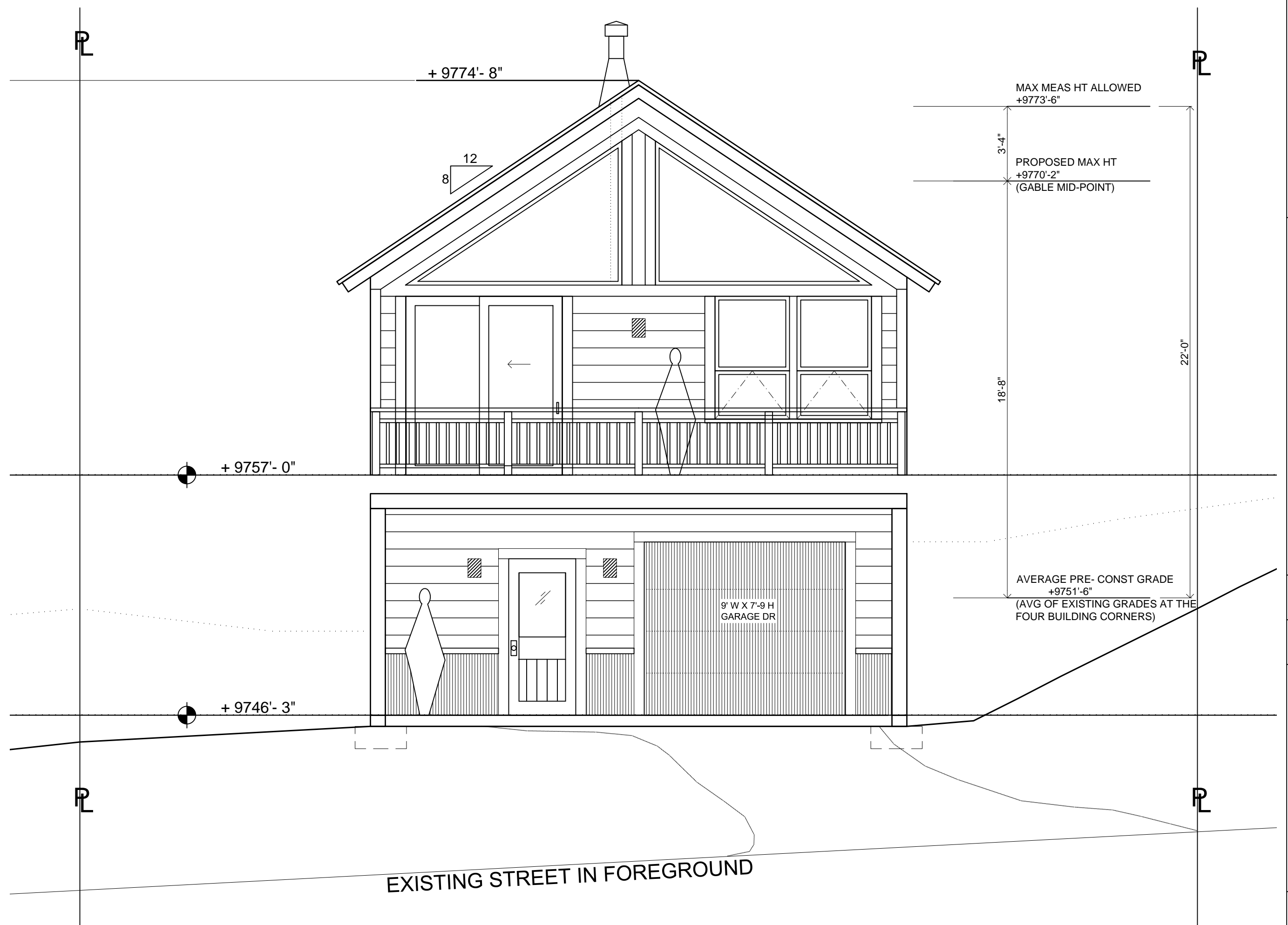
4 EAST ELEVATION



2 WEST ELEVATION



3 NORTH ELEVATION



1 SOUTH ELEVATION

REVISED:
07-26-22
removed retaining walls,
revised contours & driveway
layout to coordinate with
Uncompahgre Engineering
grading plan,
site notes added,
off-street parking added

GREG'S HOUSE
OPHIR, COLORADO

**EXTERIOR
ELEVATIONS**

DATE: **03-15-2022**

SCALE: 1/4" = 1'-0" U.O.N.

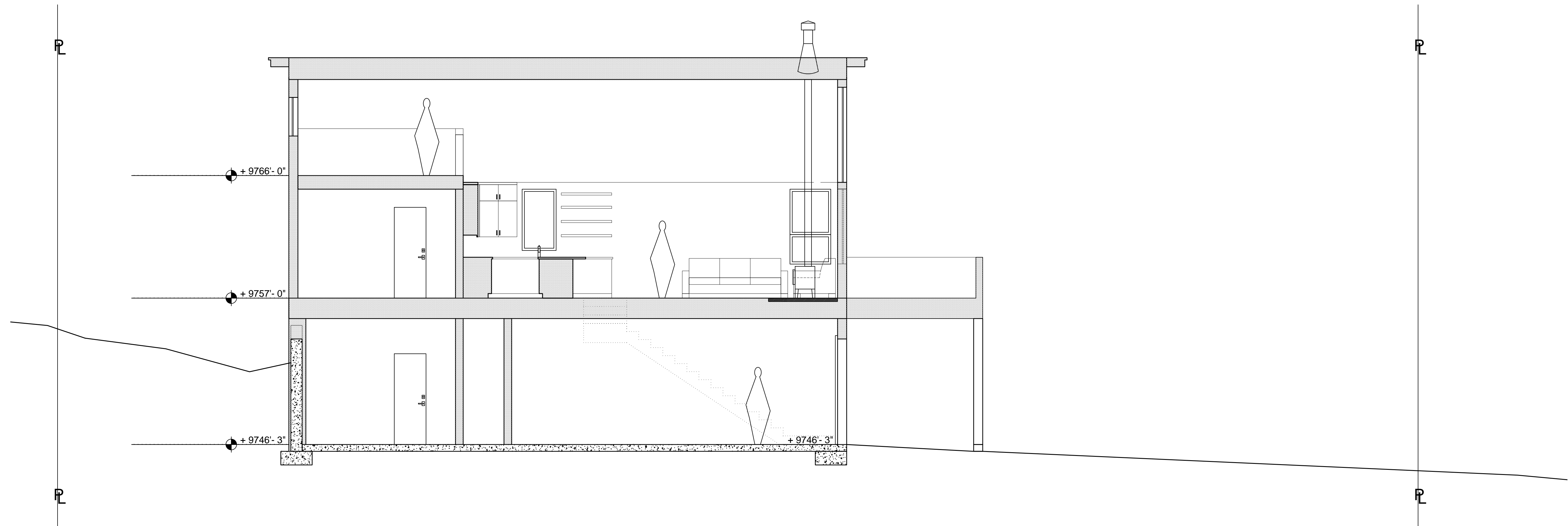
MARLA FRITZLEN
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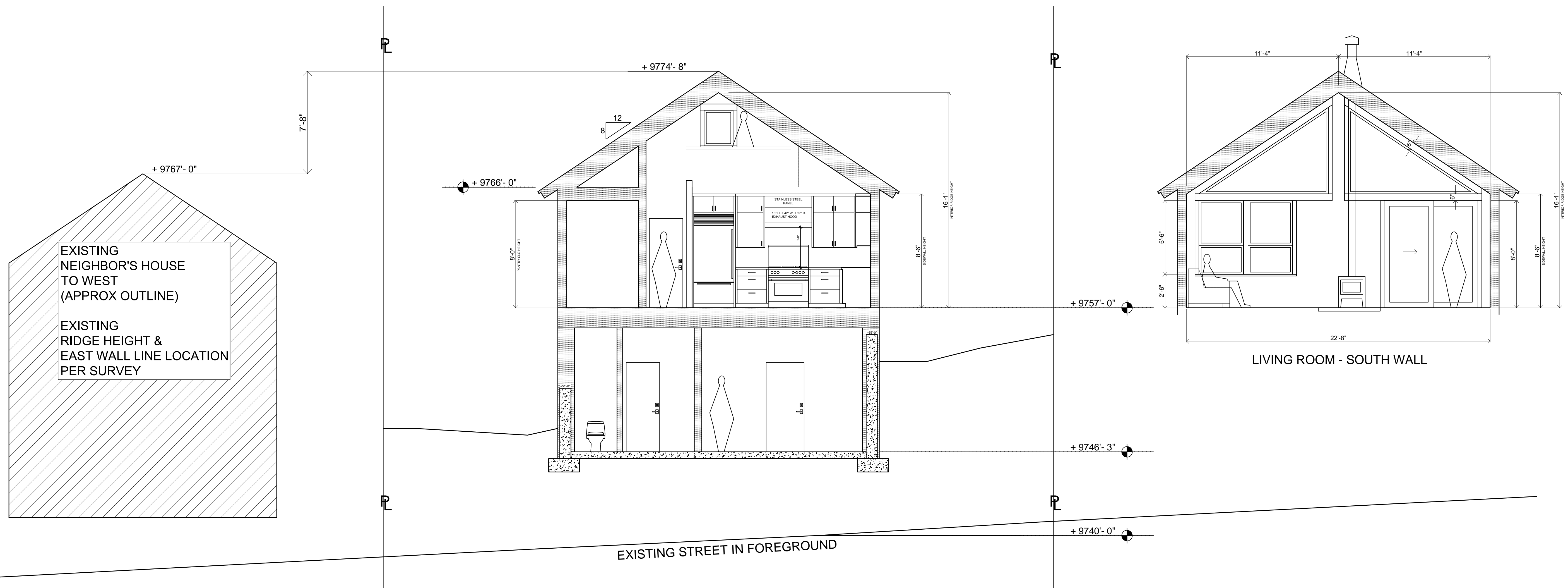
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A - 4.0



2 SECTION B (LONGITUDINAL BUILDING SECTION - LOOKING EAST)



1 SECTION A (CROSS SECTION - LOOKING NORTH)

REVISED:
07-26-22
removed retaining walls,
revised contours & driveway
layout to coordinate with
Uncompahgre Engineering
grading plan,
site notes added,
off-street parking added

GREG'S HOUSE
OPHIR, COLORADO

**BUILDING
SECTIONS**

DATE: **03-15-2022**

SCALE: 1/4" = 1'-0" U.O.N.

MARLA FRITZLEN
ARCHITECTURE, INC.

P.O. Box 82
Nucla, Colorado
81424

970 - 729 - 1606

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A - 6.0

MEMORANDUM

TO: Lisa Garrett, San Miguel County Planning
FROM: Dan Quigley, County Engineer
DATE: June 27, 2022
SUBJECT: Hope Residence, Lots 9 7 10, Block 4 Ophir OWTS Design Review

Lisa:

We have completed our review of the design plans for the proposed new OWTS system for the new 2-bedroom residence on Lots 9 & 10, Block 4 in Ophir, Colorado. Those plans were prepared by Uncompahgre Engineering, LLC (David Ballode, P.E.) and revised on June 27, 2022. We have reviewed the revised plans and take no exceptions to the revised OWTS plans as presented. We recommend approval of the applicant's OWTS permit for construction as designed.

The plans consist of two (2) sheet as follows:

- Sheet 1 of 2 – OWTS Cover, Notes, calculations and Details
- Sheet 2 of 2 – OWTS Plan

Please let me know if there are any questions about our review comments.

Best regards,



June 5, 2022

Michael Bowling
809 Inverness Lane
Lucas, Texas 75002

Dear Michael,

Per our meeting with David Ballode, at our neighboring Ophir properties, David has provided me with a site plan. The site plan addresses our desired goal of minimizing retaining walls for both of our properties (Hope, Lot 9 & 10, Block 4 and Bowling, Lot 11 & 12, Block 4.)

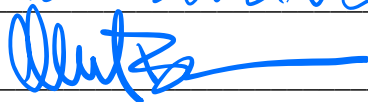
If you approve of the site plan for Lot 9 & 10, Block 4, please sign and date this letter below and I will submit it to the Town of Ophir with my Building Permit application.

Thanks for your consideration and please let me know if you have any questions.

Sincerely,

Gregory Hope
P.O. Box 139
Telluride, CO 81435
970-729-2441
ghope44@gmail.com

Name Written: Michael Bowling

Signature: 

Date: 14-JUNE-2022

San Miguel County
Building Department
P.O. Box 1170, Telluride, CO 81435
Phone: 970-728-3923

Job Address:

Parcel: 477935301009

OWTS PERMIT

Permit No: **20220068**

Type: OWTS

Work Classification: New

Status: Approved

OWTS Completed Date:
Application Date: 06/06/2022
Issued Date: 06/27/2022
Expired Date: 06/27/2023

Tank Condition: New

Leach System: New

Structure Type: SFR

Bedrooms: 2

Water Supply: Community

Lot: 09 10

Lot Size: 5000 sq. ft.

| Contact Type | Contact | Address | Phone | |
|-----------------|---------------|-------------------------------|--------------|------|
| Applicant | Greg Hope | PO Box 139 Telluride CO 81435 | 970-729-2441 | |
| Owner | HOPE GREGORY | TELLURIDE, CO 814350139 | | |
| Contractor Type | Contractor(s) | Address | Phone | Cell |

FEES DUE

| Fee | Amount |
|---------------|-----------------|
| OWTS | \$255.00 |
| State OWTS | \$20.00 |
| Total: | \$275.00 |

FEES PAID

| Date | Paytype | Amt Paid |
|-----------------------------|---------|---------------|
| 06/06/2022 | Check | \$275.00 |
| Remaining Amount Due | | \$0.00 |

Comments:

Please use the attached plan set marked APPROVED 6/27/2022 for construction of the OWTS. Contact the Design Engineer with questions or modifications during construction. The OWTS must be visually inspected by San Miguel County and by the Design PE prior to backfilling. Please notify the Site Inspector at 970-728-3923 72 hours in advance for final inspection of the OWTS. A Certificate of Occupancy will not be issued until the Record Letter and Record Drawing are approved.

Plans and specifications given above are approved for installation:

Lisa Garrett

6/27/2022

Signed

Date

Installed system found to comply with above approved plans and specifications:

Signed

Date

**RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS, ACTING AS THE
BOARD OF HEALTH, SAN MIGUEL COUNTY, COLORADO, CONDITIONALLY
APPROVING A VARIANCE FOR AN ON-SITE WASTEWATER TREATMENT
SYSTEM FOR GREGORY HOPE, LOT 9/10, BLOCK 4, TOWN OF OPHIR**

Resolution #2022 - 022

WHEREAS, Gregory Hope is the owner of lot 9/10, Block 4, Town of Ophir; and

WHEREAS, the Applicant, Gregory Hope, has submitted an application requesting a variance to On-Site Wastewater Treatment System (OWTS) standards; and

WHEREAS, the Colorado On-Site Wastewater Treatment Systems Act of 2012 (the Act) includes standards for the granting of Variances (Section 25-10-105), and allows the local board of health to grant variances to OWTS rules in accordance with the criteria established by the Act; and

WHEREAS, the San Miguel County Board of Health has adopted Regulation 43 (the Regulation), which includes procedures and standards for the review of requests for variances from requirements of the Regulation; and

WHEREAS, the Applicant has the burden of proof to demonstrate that the variance is justified and will pose no greater risk to public health and the environment than would a system meeting these Regulations; and

WHEREAS, the lot is a legally platted lot and different configurations for the home and OWTS have been attempted to determine a layout that can accommodate the home and OWTS. However, due to the steep grade of the lot, the OWTS cannot fit within the established 10' setback; and

WHEREAS, the Applicant and Design Engineer are proposing the installation of a PVC barrier to be placed between the Soil Treatment Area and the property line to prevent lateral migration of effluent from the OWTS onto the neighboring lot. This method has been used in other recent OWTS Variance requests to reduce the setbacks to property lines; and

WHEREAS, the Applicant sent notice of the proposed variance request and the Board of Health Public Hearing, to be held on Wednesday, May 4, 2022, to all property owners within 500 feet of the subject parcel; and

WHEREAS, a Public Hearing Notice for the proposed variance request and the Board of County Commissioners Hearing, acting as the Board of Health, to be held on May 4, 2022 was published in the Norwood Post on Wednesday, April 13, 2022; and

WHEREAS, a list of the items included in the Public Hearing Record is attached to this resolution as Exhibit A; and

WHEREAS, the Board of Commissioners of San Miguel County, Colorado, acting as the San Miguel County Board of Health, considered this application, along with relevant evidence and testimony, and approved the requested variance at a public hearing in Norwood on Wednesday, May 4, 2022.

NOW, THEREFORE, BE IT RESOLVED that the Board of Commissioners of San Miguel County, Colorado, acting as the Board of Health, hereby approves the request for an On-Site Wastewater Treatment System Variance for Greg Hope, based on the finding that the proposed variance is consistent with Section 25-10-105 of the Colorado On-Site Wastewater Treatment Systems Act and Regulation 43 of the San Miguel County Board of Health, with the following conditions:

1. The Variance Approval and Site Plan will be recorded with the San Miguel County Clerk and Recorder and attached to the property deed.
2. It is understood that this Variance is granted specific to this property, Lots 9 and 10, Block 4, Town of Ophir, for use by a 2-bedroom residence.
3. The applicant and future owners must certify that the OWTS will be regularly inspected and maintained to ensure optimal operation.

DONE AND APPROVED by the Board of County Commissioners of San Miguel County, Colorado, on May 4, 2022.

BOARD OF COUNTY COMMISSIONERS
SAN MIGUEL COUNTY, COLORADO

DocuSigned by:



DCF71D637985480...
Kris Holstrom, Chair

ATTEST:

DocuSigned by:



BE2AF0C39C63408...
Carmen L. Warfield, Chief Deputy Clerk to the Board



VOTE:

| | | | | |
|---------------|------------|-----|---------|--------|
| Hilary Cooper | <u>Aye</u> | Nay | Abstain | Absent |
| Kris Holstrom | <u>Aye</u> | Nay | Abstain | Absent |
| Lance Waring | <u>Aye</u> | Nay | Abstain | Absent |

EXHIBIT A – Public Hearing Record

Exhibit A

MEMORANDUM

TO: San Miguel County Board of Health
FROM: Lisa Garrett, Site Inspector, Planning and Building Department
Matt Gonzales, Building Official
RE: Onsite Wastewater Treatment System Regulation Variance for Gregory Hope
DATE: May 4, 2022

Background

Pursuant to the San Miguel County Onsite Wastewater Treatment Systems (OWTS) Regulations, Section 7 Variances, "The Board of Health may approve a variance from a requirement of this Regulation. Variances cannot be granted by staff."

The San Miguel County Planning and Building Department has received a request for a Variance for an Onsite Wastewater Treatment System for Lots 9/10, Block 4, Town of Ophir.

The Colorado "On-site Wastewater Treatment Systems Act," which was adopted in June 2012, established minimum standards for the location, design, construction, performance, installation, alteration, and use of on-site wastewater treatment systems within Colorado. The provision was made that each local board of health would adopt regulations that complied with the minimum standards established by the State. The "Act" made the following provisions for Variances.

25-10-105. Minimum standards – variances

(1) Rules adopted by local boards of health under section 25-10-104 (2) or (4) or promulgated by the department under Section 25-10-104 (1) govern all aspects of the location, design, construction, performance, alteration, installation, and use of on-site wastewater treatment systems and must include minimum standards established by the commission.

(2) (a) A local board of health may grant variances to OWTS rules in accordance with the criteria adopted by the commission under this article.

(b) Applicants for a variance from OWTS rules have the burden of supplying the local board of health with information demonstrating that conditions exist that warrant the granting of the variance.

On May 21, 2014, the San Miguel County Board of Health adopted Regulation 43 along with several additional items that each local board of health may choose to adopt or not. The San Miguel County Board of Health opted to allow Variances through the basic guidelines developed by the State. Our Regulation reads as follows:

Section 7 Variances [43.4(N)]**A. Variances Allowed**

1. The Board of Health may approve a variance from a requirement of this Regulation.

- Variances cannot be granted by staff.
2. Approval of a variance must be based upon evidence presented by the applicant, or their designee, showing that the variance:
 - a) would not be injurious to the public health, water quality or the environment,
 - b) would prevent a substantial hardship incurred through no fault of the applicant.
 3. Variances must not be granted under the items identified in section 43.4(N)(5) of Regulation 43.
- B. Variance Procedure
1. Variance requests must be provided in writing to the San Miguel County Board of Health and to all adjacent landowners of record at the County Assessor within 500 feet of the subject property no less than 20 days in advance of the public hearing. The variance request will include a narrative demonstrating compliance with the requirements of Section 7A.
 2. Variance requests must include all items identified in section 43.4(N)(2)(d) of Regulation 43.
 3. The applicant has the burden of proof to demonstrate that the variance is justified and will pose no greater risk to public health and the environment than would a system meeting these Regulations. The Board of Health must determine if this item has been addressed prior to granting a variance.
 4. The Board of Health has the authority to impose site-specific requirements and conditions on any variance granted.

Requested Variance

Greg Hope, the Applicant and Property Owner, has submitted an OWTS Variance Application to request a reduction in the setback from the Soil Treatment Area (STA) to the west and south property lines from 10 feet to 2 feet.

In a letter attached to the Variance Application, the applicant explains that many different configurations for the home and OWTS have been attempted to determine a layout that can accommodate the home and OWTS. David Ballode, OWTS Design Engineer, also explains the different options that were considered. However, due to the steep grade of the lot, the OWTS cannot fit within the established 10' setback.

The applicant and design engineer are proposing the installation of a PVC barrier to be placed between the Soil Treatment Area and the property line to prevent lateral migration of effluent from the OWTS onto the neighboring lot. This method has been used in other recent OWTS Variance requests to reduce the setbacks to property lines.

Public Noticing

As required by C.R.S. § 30-28-106(1), a Notice of Public Hearing was published in the Telluride Daily Planet and in the Norwood Post on Wednesday, April 13, 2022. The applicant also provided mailed notice to all property owners within 500 ft. The list of names and addresses is included in the packet.

Referral Agencies

I received a call from the Ophir Town Manager, John Wontrobski. He requested a copy of the OWTS Variance application. I sent the application to him by email April 7, 2022.

Public Comments

I received an email April 13, 2022, from an Ophir property owner inquiring about the use of the PVC liner to reduce setbacks. She expressed interest in the possibility of requesting an OWTS Variance to utilize this method to install an OWTS on her Ophir property in the future.

A note was received April 20, 2022, from P.O. Box 325, Rico, Colorado stating "I object to reducing the setbacks to septic due to water quality and neighbor density. I am a 40 yr resident and don't like the congestion!"

I have received a few other calls with questions about the proposed variance. I encouraged the callers to provide written comments or attend the hearing on May 4, 2022.

Review Standards

The Board of Health may approve a variance from a requirements of Regulation 43. Variances cannot be granted by staff. Approval of a variance must be based upon evidence presented by the applicant, or their designee, showing that the variance: a) would not be injurious to public health, water quality or the environment, and b) would prevent a substantial hardship incurred through no fault of the applicant.

Regulation 43 describes several situations where variances cannot be granted.

No variance shall be issued where the property can accommodate a conforming OWTS.

- Due to the topography and the size of this parcel, there is insufficient room for a modest two-bedroom home and the appropriately sized OWTS to serve it without an OWTS Variance to allow a reduction in setbacks of the Soil Treatment Area to the west and south property lines.

No variance shall be issued to mitigate an error in construction involving any element of property improvements.

- There are no errors in construction.

No variance shall be allowed solely for economic gain.

- The request is to ensure the ability of the owner to build a two-bedroom residence to be occupied by the owner.

No variance shall be issued, if it will result in a setback reduction to an offsite physical feature that does not conform to the minimum setbacks defined in Table 7-1 of this regulation without the board of health considering any concerns of the owner of property containing said feature.

- The reduction of setbacks from the proposed OWTS to property lines does not appear to concern the adjoining property owner. The PVC Liner will mitigate lateral migration of effluent onto the Kingsley's property to the west. The Kingsleys have also signed a letter from Greg offering their approval of the requested variance. The Aurum Street Right-of-Way adjoins the southerly property line, which would have limited human activity or future development.

Property lines are considered offsite features. The property owner containing said feature must be notified of the time and date of the hearing.

- All property owners within 500 feet of the property have been notified.

No variance shall be issued, if it reduces the separation to ground water or bedrock based on the level of treatment in Table 7-2.

- The proposed design does not reduce separation to groundwater or bedrock.

No variance from the horizontal setback from a well shall be issued unless it also meets the variance requirements of the Board of Examiners of Water Well Construction and Pump Installation Contractors.

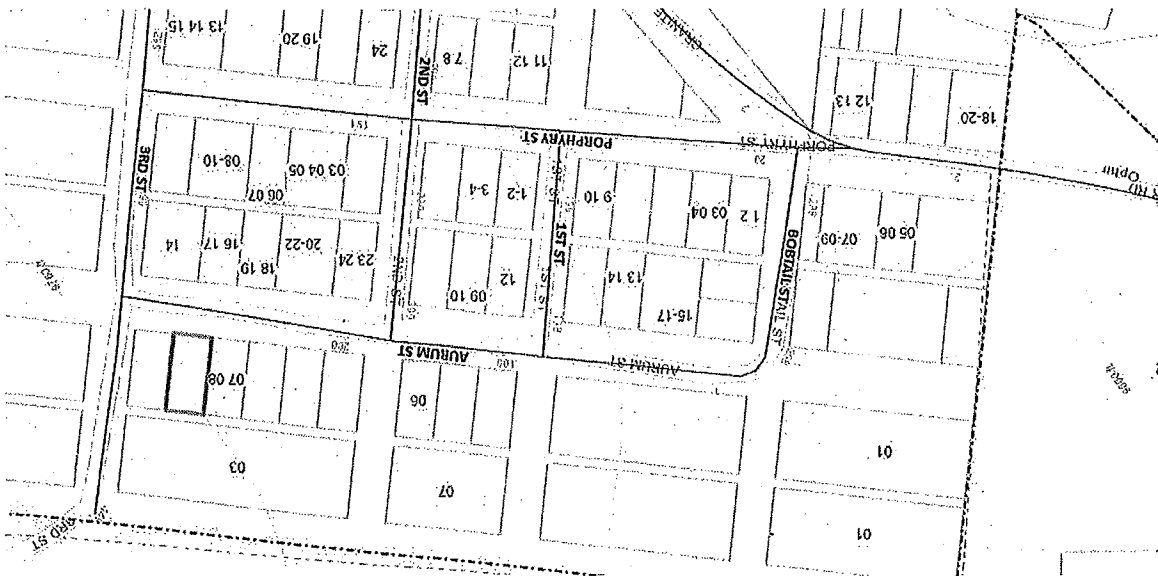
- The Town of Ophir provides domestic water to the residents. No well is required.

No variance shall be issued for the installation of a higher level treatment system based on sizing or separation reductions without the local public health agency having a maintenance and oversight program as defined in section 43.14.D.

- The proposed OWTS is sized for a two-bedroom house to be constructed on-site and no reductions in size of the OWTS have been requested. San Miguel County does not currently have an oversight program in place to allow a reduction.



Aerial Photo



Location Map - Town of Ophir

Photographs of Property



Discussion

The applicant for this OWTS Variance, Gregory Hope, would like to build a two-bedroom home on his property in Ophir. The information presented indicates that an OWTS Variance is required for this to be possible. The applicant and OWTS Design engineer plan to design and install the OWTS to ensure it would not pose an increased risk to the environment or to public health.

Recommendation

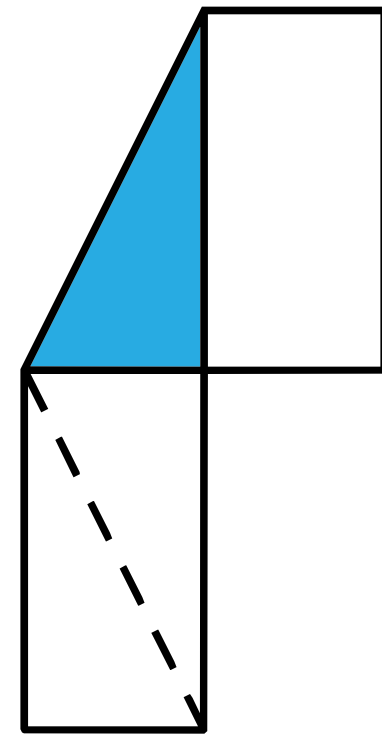
Staff has attempted to present factual information for the Board of Health to make an informed decision. Two sample motions are provided below.

- A. Move to approve the Hope OWTS Variance request, based on the finding that the request meets the intention of Regulation 43 and that granting a variance for the proposed OWTS would not be injurious to public health, water quality or the environment, and that it would prevent a substantial hardship incurred through no fault of the applicant or property owner.

This approval is based on the following conditions, as well:

- 1.) The Variance Approval and Site Plan will be recorded with the San Miguel County Clerk and Recorder and attached to the property deed.
- 2.) It is understood that this Variance is granted specific to this property, Lots 9 and 10, Block 4, Town of Ophir, for use by a 2-bedroom residence.
- 3.) The applicant and future owners must certify that the OWTS will be regularly inspected and maintained to ensure optimal operation.

- B. Move to deny the Hope Variance request, based on the information presented in this hearing, for the following reasons: To be addressed by the Commissioners.



| | |
|--|----------------------------------|
| Building Code: 2018 IBC | |
| Local Jurisdiction: Town of Ophir | |
| Risk Category: II | |
| <u>Wind Loading</u> | |
| Basic Wind Speed (mph) | $V_{ult} = 115$, $V_{asd} = 90$ |
| Exposure Category | B |
| <u>Seismic Loading</u> | |
| Site Class | D |
| Seismic Design Category | B |
| <u>Snow Loading</u> | |
| Ground Snow Load, P_g (psf) | 125 |
| Minimum Flat Roof Snow, P_f (psf) | 88 |
| Slope Factor, C_s | 0.56 (8:12 pitch) |
| <u>Foundations</u> | |
| Allowable Bearing Capacity - assumed (psf) | 1,500 |
| Minimum Frost Depth (in) | 48 |



A circular professional engineer seal for Matthew Laurence, Colorado License 56450, expires 05/03/2022. The seal features a blue and white color scheme with a gear-like outer border.

1. The structural portion of these documents are not intended to function alone. They are a portion of the larger construction document package drafted by sub-consultants under the direction of the project architect. All of these documents are intended to function together.
2. If no stamp is present on these documents, they shall be considered preliminary and developed for coordination or pricing purposes.
3. These structural documents were drafted by DB Structural Design Ltd. as the Engineer of Record, referred to herein as the EOR.
4. It is the responsibility of the contractor to notify the EOR of any discrepancy between these drawings and the overall set of construction documents developed by the other consultants.
5. It is not acceptable to deviate from these documents without first explicitly notifying the EOR in writing of any deviation. These deviations should be reviewed and approved by the EOR before proceeding.
6. Review of a submittal is not considered approval of deviation unless explicitly noted by the EOR.
7. The structure documented herein is intended to function in a completed state. It is the responsibility of the contractor to construct this building in a safe and structurally sound manner. The contractor is responsible for all means and methods of construction.
8. All project safety is the responsibility of the contractor. If any structural elements are used for anything other than their intended design, the EOR shall be notified prior to this use. Examples include fall protection and temporary guard rail attachment points.
9. These documents are not intended to be "scaled." All dimensions are explicitly provided. If an element cannot be located based on the information provided, contact EOR for clarification.
10. No damage to the structure during construction shall be repaired without first notifying the EOR.
11. The general notes are intended to function as the project specifications.
12. It is the responsibility of the contractor to review all submittals prior to the EOR review.
13. All submittal reviews are conducted by the EOR as a courtesy to the contractor to assist in the construction process and to ensure the construction documents are being interpreted correctly.

| | |
|-------|---------------------------|
| DWG | DRAWING |
| DWL | DOWEL |
| (E) | EXISTING CONSTRUCTION |
| E/ | EDGE OF |
| EA | EACH |
| EF | EACH FACE |
| EJ | EXPANSION JOINT |
| ELEV | ELEVATION |
| EQUIP | EQUIPMENT |
| EQUIV | EQUIVALENT |
| EW | EACH WAY |
| EXP | EXPANSION |
| EXT | EXTERIOR |
| F/ | FACE OF |
| FDN | FOUNDATION |
| FLR | FLOOR |
| FS | FAR SIDE |
| FTG | FOOTING |
| GA | GAGE/ GAUGE |
| GALV | GALVANIZE(D) |
| GB | GRADE BEAM |
| GC | GENERAL CONTRACTOR |
| GEN | GENERAL |
| GLB | GLULAM BEAM |
| GLC | GLULAM COLUMN |
| GR | GRADE |
| HDG | HOT DIPPED GALVANIZED |
| HDR | HEADER |
| HK | HOOK |
| HORIZ | HORIZONTAL |
| HSA | HEADED STUD ANCHOR |
| HSS | HOLLOW STRUCTURAL SECTION |
| HT | HEIGHT |
| I/F | INSIDE FACE |

| | |
|--------|-------------------------------------|
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OH | OPPOSITE HAND |
| OPNG | OPENING |
| OPP | OPPOSITE |
| OSB | ORIENTED STRAND BOARD |
| PAF | POWDER ACTUATED FASTENER |
| PAR | PARALLEL |
| PCF | POUNDS PER CUBIC FOOT |
| PEN | PENETRATION |
| PERP | PERPENDICULAR |
| PJP | PARTIAL JOINT PENETRATION |
| PL | PLATE |
| PLF | POUNDS PER LINEAL FOOT |
| PLY | PLYWOOD |
| PREFAB | PREFABRICATED |
| PRELIM | PRELIMINARY |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PSL | PARALLEL STRAND LUMBER |
| PT | PRESSURE TREATED |
| R | RADIUS |
| RE: | REFERENCE |
| REINF | REINFORCE/REINFORCING/REINFORCEMENT |
| REM | REMAINING |
| REQD | REQUIRED |
| REV | REVISION |
| SC | SLIP CRITICAL |
| SCHED | SCHEDULE |
| SCL | STRUCTURAL COMPOSITE LUMBER |
| SECT | SECTION |
| SHT | SHEET |
| SIM | SIMILAR |
| SLBB | SHORT LEG BACK-TO-BACK |

| SHEET # | SHEET NAME |
|---------|---------------------------------------|
| S-0.1 | TITLE SHEET |
| S-0.2 | GENERAL NOTES |
| S-0.3 | LOAD KEYS |
| S-0.4 | TYPICAL DETAILS |
| S-0.5 | TYPICAL DETAILS |
| S-0.6 | TYPICAL DETAILS |
| S-3.0 | FOUNDATION & MAIN LEVEL FRAMING PLANS |
| S-3.1 | LOFT & ROOF FRAMING PLANS |
| S-4.0 | DETAILS |
| S-5.0 | SCHEDULES |
| S-5.1 | SCHEDULES |

[illegible]

TITLE SHEET

S-0.1

Foundation Notes:

1. The foundations for this project have been designed based on information provided within the geotechnical report. This information is summarized in the design criteria section of these documents.
2. The foundation system was selected based on recommendations by the geotechnical engineer.
3. Special care should be taken to adhere to any and all recommendations by the geotechnical engineer.
4. Soils shall be inspected and approved by the geotechnical engineer after excavation and prior to placement of new foundations or slab on grade. Written approval should be obtained from the geotechnical engineer.
5. Ensure that bottom of footing is placed below frost depth, noted in the design criteria, measured from finished grade to bottom of footing.
6. Backfill against structure may not occur prior to installation of any and all floors at or below grade. This includes basement slab on grade, where present.
7. In the case of a crawl space with no slab on grade, exterior footings shall be buried a minimum of 1'-0" measured from t/grade in crawl space to bottom of footing.
8. Concrete walls are not designed to resist saturated soil unless noted otherwise. Consult architectural documents for appropriate drainage requirements. Soil drainage is not shown in structural construction documents.

Foundation and Soils Inspection Notes:

1. Special inspections and testing shall conform to chapter 17 of the IBC and the local building department.
2. Any item not noted as continuous inspection shall be inspected periodically. It is the responsibility of the special inspector to determine and coordinate the frequency of their inspections.
3. The following shall have inspection verification of size, location, quantity, and tolerance:
 - A. Compaction
 - B. Pile, micropile, screw pile, or helical pier installation.
 - C. Permanent soil retention elements.
4. The following shall have inspection and testing verification of strength, grade, classification, quality, density, proportions, and manufacturers certification reports:
 - A. Footing and soil bearing material.
 - B. Slab on grade subgrade material.
 - C. Compaction.
 - D. Pile, micropile, screw pile, or helical pier installation.
 - E. Pile, micropile, screw pile, or helical pier load testing.
 - F. Permanent soil retention elements.
5. The following shall have continuous inspection and verification of operations and conditions:
 - A. Compaction
 - B. Pile, micropile, screw pile, or helical pier installation.
 - C. Permanent soil retention elements.

Cast in Place Concrete Notes:

1. Refer to ACI 318, ACI 301, and ACI 117 for all standards, specifications, and tolerances respectively.
2. Contractor shall submit all mix designs for review by the EOR.
3. Contractor shall submit all penetrations, not shown in structural construction documents, in either walls or slabs for review to the EOR.
4. Refer to architectural documents for any openings not dimensioned or shown in structural documents.
5. Provide 3/4" chamfer at top of wall and all outside corners of concrete walls.
6. Provide standard hook length at all hooked bars unless noted otherwise.
7. If splice class is not specified, provide class B splice.
8. Welding of reinforcement is prohibited unless A706 weldable rebar is provided.
9. All concrete is intended to be cast-in-place unless noted otherwise.
10. Any shotcrete should be coordinated with the EOR prior to construction.
11. Unless noted otherwise, provide (2)#5 at each side of openings. Extend 24" beyond edges of opening.
12. No curing compounds should be used on a slab that will receive another layer above. Ex: paint, tile, or topping slab.
13. All reinforcing is to be 60 ksi unless noted otherwise.

Cast in Place Concrete Inspection Notes:

1. Special inspections and testing shall conform to chapter 17 of the IBC and the local building department.
2. Any item not noted as continuous inspection shall be inspected periodically. It is the responsibility of the special inspector to determine and coordinate the frequency of their inspections.
3. The following shall have inspection verification of size, location, quantity, and tolerance:
 - A. Formwork installation.
 - B. Reinforcing placement.
 - C. Steel embeds.
 - D. Cast embedded anchors.
 - E. Verification of mix design use on site prior to placement.
 - F. Concrete placement.
 - G. Post-installed anchors in overhead applications.
 - H. All other post installed anchors.
 - I. Floor flatness survey.
4. The following shall have inspection and testing verification of strength, grade, classification, quality, density, proportions, and manufacturers certification reports:
 - A. Reinforcing placement.
 - B. Steel embeds.
 - C. Cast embedded anchors.
 - D. Concrete strength, slump, temperature, and air content.
 - E. Concrete placement.
 - F. Concrete curing.
 - G. Post-installed anchors in overhead applications.
 - H. All other post-installed anchors.
 - I. Welded reinforcing.
5. The following shall have Continuous inspection and verification of operations and conditions:
 - A. Concrete strength, slump, temperature, and air content.
 - B. Verification of mix design use on site prior to placement.
 - C. Concrete placement.
 - D. Post-installed anchors in overhead applications.
6. If any welding of reinforcing is to be conducted, certifications of the welder shall be verified

Structural Steel Notes:

1. Refer to AISC 360 and AISC 303 for all standards, specifications, and tolerances respectively.
2. Contractor shall submit all structural steel for review by the EOR.
3. Erection drawings shall include plan drawings at 1/8"=1'-0" minimum scale complete with sections, elevations, and details as required to properly erect the structural steel frame.
4. Shop drawings shall include piece drawings which indicate cuts, connections, camber, holes, welds and dimensions as required for fabrication of the members. Part drawings are not required to be submitted unless specifically requested.
5. Engineer of Record (EOR) has designed all connections. If a connection design is inadvertently omitted from contract documents the contractor shall request specific connection design from the EOR.
6. Connection Design Forces: [Factored LRFD values, Unfactored ASD values].
7. Simple Beam Connections: Drawing connections with capacities equal to or greater than beam reactions shown on the sections. Single end connections shall be detailed to use the maximum number of bolts so that they will fit into the supported beam web. Double sided connections shall be detailed such that the angle or bent plate length is at least 60% of the supported beam "T" dimension.
8. HSS Cap Plates: Provide 1/4" cap plates at top of all HSS columns, uno.
9. Unframed end of wide flange beams: At the end of wide flange beams without incoming framing or other means of restraint of rotation of the beam, provide a pair of 3/8" full depth stiffeners or a 3/8" full depth end plate at the end of the beam.
10. Where indicated on the drawings as slip critical and where oversized or long-slotted holes are utilized, shear, braked joints shall be slip critical. Slip critical surfaces shall be prepared to meet the requirements of a Class A surface, and bolts shall be installed to the fully tensioned condition.
11. Where bolts are subject to non-static loading, are utilized to interconnect parts of a built up compression member, or all Group B fasteners loaded in tension shall be installed to the fully tensioned condition.
12. Bolts not subject to the requirements for slip critical connections and not required to be fully tensioned may be installed to the snug-tight condition.
13. A307 bolts may be used only where indicated.
14. Fillet Welds: Size as indicated, but not less than AISC minimum size.
15. Groove Welds: Full penetration unless noted otherwise.
16. Welds are continuous unless noted otherwise.
17. Uncoated Steel: All steel not specifically indicated as painted steel, steel to receive spray-on-fireproofing or to be galvanized, and faying surfaces of slip critical connections shall be uncoated. Prepare surface per SSPC-SP1.
18. Primed Steel: Steel indicated to painted, with no specific paint requirements stated, shall have a minimum of two coats of SSPC-SP2 minimum and receive one coat of fabricator's standard rust-inhibitive primer paint applied to a minimum dry-film thickness of 1 mil.
19. Galvanized Steel: Steel indicated to be galvanized shall be cleaned, prepared, and galvanized in accordance with ASTM A123. Repair minor defects, damaged areas, and welded joints in accordance with ASTM A780. Provide vent holes as required in tube members. Provide vent hole plugs at all vertically oriented tubes.
20. Other specified coatings: Where indicated on the drawings, provide specified coating system as indicated. Clean and prepare steel as required by the specification or coating manufacturer.
21. No final bolting or welding shall be performed until as much of the structure which will be stiffened thereby has been properly aligned.
22. Field correction of fabrication or other errors will be permitted only when approved by the EOR. Finish gas-cut sections in accordance with AWS D1.1.

Structural Steel Inspection Notes:

1. Special inspections and testing shall conform to chapter 17 of the IBC and the local building department.
2. Any item not noted as continuous inspection shall be inspected periodically. It is the responsibility of the special inspector to determine and coordinate the frequency of their inspections.
3. The following shall have inspection verification of size, location, quantity, and tolerance:
 - A. Connection erection and assembly.
 - B. Bolts in snug tight joints.
 - C. Pretensioned and slip critical bolts/joints using turn-of-nut with matchmarking, direct-tension indicator washers, or twist-off-type tension-control bolts.
 - D. Pretensioned and slip critical bolts/joints using turn-of-nut without matchmarking or calibrated wrench methods of installation.
 - E. All welds other than complete joint penetration groove welds.
 - F. Complete penetration groove welds.
 - G. Shear stud placement.
 - H. Beam camber at fabrication facility.
 - I. Galvanized structural steel members.
4. The following shall have inspection and testing verification of strength, grade, classification, quality, density, proportions, and manufacturers certification reports:
 - A. Connection erection and assembly.
 - B. Bolts in snug tight joints.
 - C. Pretensioned and slip critical bolts/joints using turn-of-nut with matchmarking, direct-tension indicator washers, or twist-off-type tension-control bolts.
 - D. Pretensioned and slip critical bolts/joints using turn-of-nut without matchmarking or calibrated wrench methods of installation.
 - E. All welds other than complete joint penetration groove welds.
 - F. Complete penetration groove welds.
 - G. Shear stud placement.
 - H. Galvanized structural steel members.
5. The following shall have Continuous inspection and verification of operations and conditions:
 - A. Pretensioned and slip critical bolts/joints using turn-of-nut without matchmarking or calibrated wrench methods of installation.
 - B. Complete penetration groove welds.
6. The fabrication facility shall require an audit and inspection of its quality control program and provide records during the course of fabrication for the above mentioned inspections and testing.
7. The following shall provide verification of certifications:
 - A. Fabrication facility.
 - B. All welds other than complete joint penetration groove welds.
 - C. Complete penetration groove welds.
8. Special inspection and testing shall conform to all requirements of AISC 360 Chapter N, unless noted otherwise.
9. Special inspection shall be required for all shop fabricated members unless the fabrication facility has been approved to perform such work without special inspection by an approved agency.

STEEL MATERIALS

| <u>Material</u> | <u>Standard</u> |
|---|---|
| W & WT sections | ASTM A992 (50 ksi) or ASTM A572 Grade 50 (50 ksi) |
| Rectangular HSS | ASTM A500 Grade C (50 ksi) |
| Round HSS | ASTM A500 Grade C (46 ksi) |
| Pipe | ASTM A53 Grade B (35 ksi) |
| M, S, C, MC, L, MT, & ST sections | ASTM A36 (36 ksi) |
| Plates, bars, and threaded rod/studs - typical - when noted as 50 ksi | ASTM A36 (36 ksi) ASTM A572 Grade 50 (50 ksi) |
| Anchor rods | ASTM F1554 Grade 55 w/ Supplement S1 |
| Bolts - typical - where indicated as Group B - where indicated as A307 | ASTM F3125 Grade A325 or Grade F1850 ASTM F3125 Grade A490 or Grade F2280 ASTM A307 Grade A |
| Nuts | ASTM A563, Heavy hex |
| Plate washers | ASTM A36 |
| Washers | ASTM F436 |
| Direct-tension indicator washers | ASTM C309, Type I, Class A |
| Headed stud anchors | ASTM A108/A29 |
| Weld electrodes | E70, 70 ksi |

Wood Framing Notes:

1. Refer to ANSI/AF and PA NDS for wall wood construction tolerances and specifications.
2. All member sizes are nominal unless noted otherwise.
3. All wood framing shall have a moisture content less than or equal to 19% and should be marked S-Dry or KD.
4. All Sill Plates shall be pressure treated Douglas Fir-Larch.
5. Any connectors, anchors, bolts, or hangers in contact with treated wood shall be hot dip galvanized G90 or stainless steel.
6. All nails to be common wire nails and conform to ASTM F1667.
7. If using pneumatic nail gun, nail length and diameter must be greater than or equal to the specified common wire nail.
8. All steel plates used in wood construction shall conform to ASTM A36.
9. All bolting of wood members shall conform to ASTM A307.
10. Oversize bolt holes by 1/16" typ.
11. Retighten all bolts prior to installation of finishes.
12. Wall sheathing shall have an APA Span Rating of 32/16 with a minimum thickness of 15/32".
13. Floor sheathing shall be APA Rated Sturd-I-Floor 24 oc with a minimum thickness of 23/32".
14. Roof sheathing shall have an APA Span Rating of 40/20 with a minimum thickness of 19/32".
15. Typical LVL width is 1 3/4" unless noted otherwise.

Premanufactured Truss Notes:

1. Premanufactured Wood Trusses shall be designed in accordance with the "Design Specifications of Light Metal Plate Connected Wood Trusses" except where state and local codes are more stringent.
2. Design of wood elements shall conform to the NDS.
3. Truss fabricator is responsible for all member and connection design and detailing and for all dimensioning, coordination, and erection of trusses and their bracing. Contract documents show only basic dimensioning and configurations of trusses. Detailed positioning and spacing of trusses is the responsibility of the fabricator.
4. Trusses shall be designed to resist the dead loads of completed construction and the larger of live, snow, and wind uplift loads.
5. Bottom chords shall be designed for the live loads required by the applicable codes and standards.
6. Metal anchorage devices for trusses shall be designed for specified wind uplift less $0.6 \times (ASD)$ of the resisting dead load. Toe nailing is not permitted.

NAIL DIMENSIONS

| <u>Common Nail</u> | <u>Minimum Diameter (in)</u> | <u>Minimum Length (in)</u> | <u>Allowable Box Nail/Sinker Nail Substitute (Nail Gun Nails)</u> |
|--------------------|------------------------------|----------------------------|---|
| 6d | 0.113 | 2 | 8d |
| 8d | 0.131 | 2.5 | 16d/12d |
| 10d | 0.148 | 3 | 20d/16d |
| 12d | 0.148 | 3.25 | 40d/20d |
| 16d | 0.162 | 3.5 | 40d/20d |
| 20d | 0.192 | 4 | NA/30d |

Notes:
 1. All nails specified in structural drawings are common nails unless noted otherwise.
 2. When substituting nail gun nails, refer to substitute column.

MINIMUM NAILING REQUIREMENTS

| Connection | Common Nails | Alternate Option |
|--|---|--|
| 1"x6" sheathing to bearing or joist | (2)8d | -- |
| 1"x8" and greater sheathing to bearing or joist | (3)8d | -- |
| 2" subfloor to joist, girder, or blocking | (3)16d | -- |
| blocking to top plate below, toenail ea end | (3)8d | (3)0.131"Øx3" |
| blocking between rafter/truss to rafter/truss | (2)8d toenail ea end or (2)16d end nail | (2)0.131"Øx3" toenail ea end or (3)0.131"Øx3" end nail |
| bottom plate to joist or blocking | 16d@16"OC | 0.131"Øx3"@12"OC |
| top or bottom plate to stud | (2)16d | (3)0.131"Øx3" |
| stud to top or bottom plate | (4)8d toenail | (4)0.131"Øx3" toenail |
| top plate to top plate | 16d@16"OC | 0.131"Øx3"@12"OC |
| stud to stud | 16d@24"OC | 0.131"Øx3"Ø@16"OC |
| top plate lap at corners | (2)16d | (3)0.131"Øx3" |
| Rim joist/blocking to top plate | 8d@6"OC toenail | 0.131"Øx3"@6"OC |
| built up header, 2" to 2" | 16d@16"OC ea face | -- |
| continuous header to stud | (4)8d toenail | -- |
| ceiling joists to plate | (3)8d toenail | (3)0.131"Øx3" toenail |
| ceiling joists not attached to parallel rafter, laps over partitions | (3)16d | (4)0.131"Øx3" |
| ceiling joists attached to parallel rafter | IBC table 2308.7.3.1 | IBC table 2308.7.3.1 |
| joist at all bearings | (3)8d toenail | (3)0.131"Øx3" toenail |
| joist to rim joist | (3)16d end nail | (4)0.131"Øx3" end nail |
| rafter/roof truss to top plate | (3)10d toenail | (4)0.131"Øx3" toenail |
| roof rafter to ridge, valley, or hip | (2)16d end nail | (3)0.131"Øx3" end nail |
| 1" brace to ea stud and plate | (2)8d face nail | (2)0.131"Øx3" face nail |
| built up corner studs | 16d@24"OC | 0.131"Øx3"@12"OC |
| 2" planks | (2)16d face nail | -- |

Notes:

1. These are the minimum required nail connections, uno. Contract documents may have more strict requirements, RE: Plan and Details.

DESIGN VALUES FOR MANUFACTURED LUMBER

| Type - E | Flexural Stress (psi) | Compressive Stress (psi) | Tensile Stress (psi) | Compressive Stress Perp (psi) | Horiz Shear Stress (psi) | Modulus of Elasticity (ksi) |
|-------------------------------|-----------------------|--------------------------|----------------------|-------------------------------|--------------------------|-----------------------------|
| Laminated Strand Lumber (LSL) | | | | | | |
| 2x4 and 2x6 Studs - 1.3E | 1,700 | 1,400 | 1,075 | 435 | 400 | 1,300 |
| 2x8 Studs - 1.5E | 2,250 | 1,950 | 1,500 | 475 | 400 | 1,500 |
| Headers and Beams - 1.55E | 2,325 | 1,350 | 1,070 | 800 | 310 | 1,550 |
| Laminated Veneer Lumber (LVL) | | | | | | |
| Headers and Beams - 2.0E | 2,600 | 2,510 | 1,555 | 750 | 285 | 2,000 |

DESIGN VALUES FOR DIMENSIONAL LUMBER

| Grade | Flexural Stress (psi) | Compressive Stress (psi) | Horizontal Shear Stress (psi) | Modulus of Elasticity (ksi) |
|-------------------------|-----------------------|--------------------------|-------------------------------|-----------------------------|
| Douglas Fir-Larch (DFL) | | | | |
| Select Structural (SS) | 1,500 | 1,700 | 180 | 1,900 |
| No1 | 1,000 | 1,500 | 180 | 1,700 |
| No2 | 900 | 1,350 | 180 | 1,600 |
| Stud | 700 | 850 | 180 | 1,400 |

DESIGN VALUES FOR WOOD DECKING

| Grade | Flexural Stress (psi) | Compressive Stress Perpendicular (psi) | Modulus of Elasticity (ksi) |
|-------------------------|-----------------------|--|-----------------------------|
| Douglas Fir-Larch (DFL) | | | |
| Select | 1,750 | 625 | 1,800 |
| Commercial | 1,450 | 625 | 1,700 |
| Western Cedar (WC) | | | |
| Select | 1,250 | 425 | 1,100 |
| Commercial | 1,050 | 425 | 1,000 |
| Southern Pine (SP) | | | |
| Select | 1,400 | 565 | 1,600 |
| Commercial | 1,400 | 565 | 1,600 |



GREG HOPE HOUSE
OPHIR, COLORADO

ISSUE: PERMIT

PROJECT #: 220404

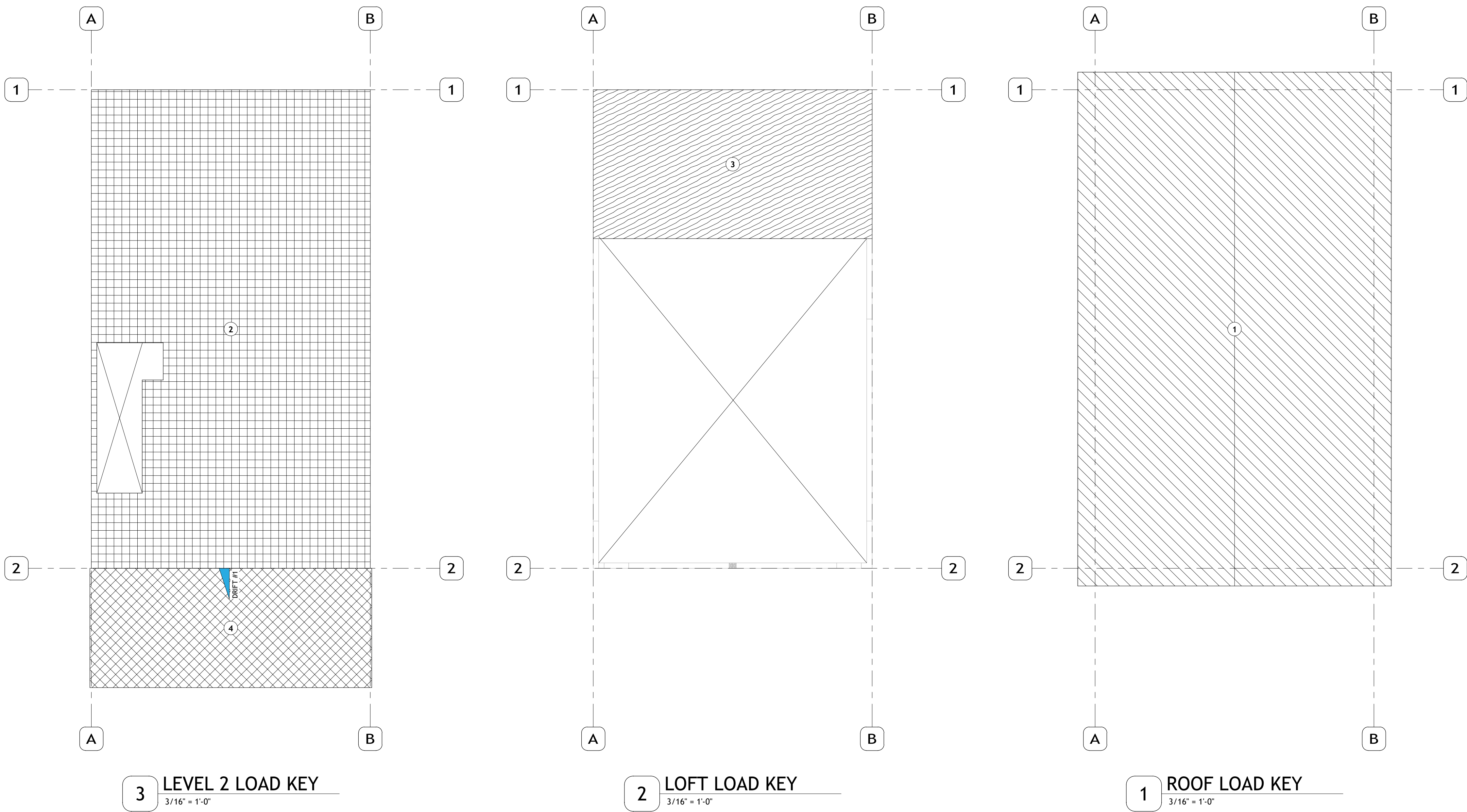
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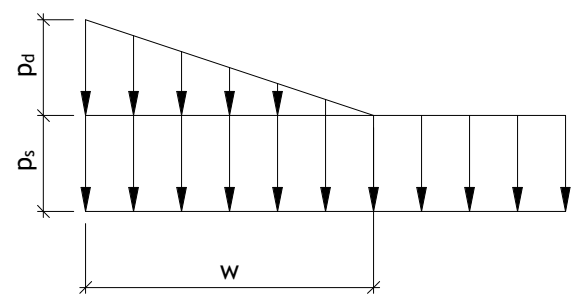
GENERAL NOTES

S-0.2

GREG HOPE HOUSE
OPHIR, COLORADO



| LOAD KEY TABLE | | | | | | | |
|---|-----|---|-------------------|------------------------------|-----------------|-----------------|-----------------------------------|
| Load Name | Tag | Hatch | Self Weight (psf) | Superimposed Dead Load (psf) | Live Load (psf) | Snow Load (psf) | Comments |
| Typical Roof | ① |  | 5 | 10 | -- | 50 | C _s = 0.56 |
| Typical Residential | ② |  | 25 | 10 | 40 | -- | 1 1/2" max conc topping slab |
| Loft | ③ |  | 5 | 10 | 40 | -- | -- |
| Deck | ④ |  | 5 | 10 | 60 | 105 + Drift | See load keys for drift locations |
| Notes: 1. Snow loads are shown in place of roof live loads. 2. Reported snow load Includes exposure factor, thermal factor, sloped roof factor, and importance factor, see Design Criteria. | | | | | | | |



| SNOW DRIFT TABLE | | |
|------------------|----------------------|-----------|
| | p _d (psf) | w (ft-in) |
| Drift #1 | 110 | 14'-9" |

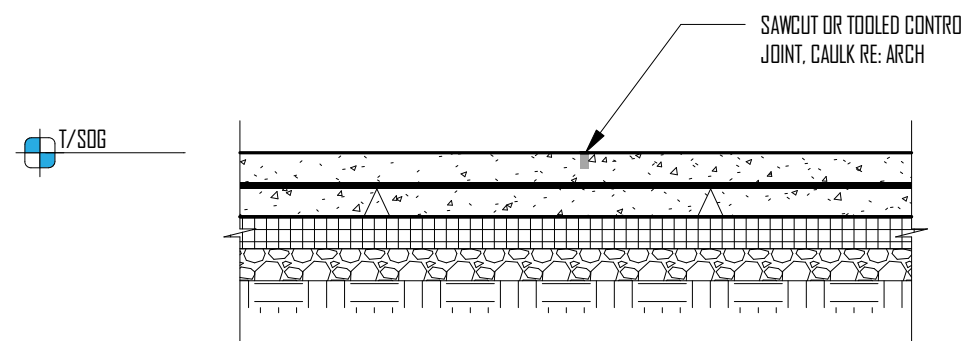
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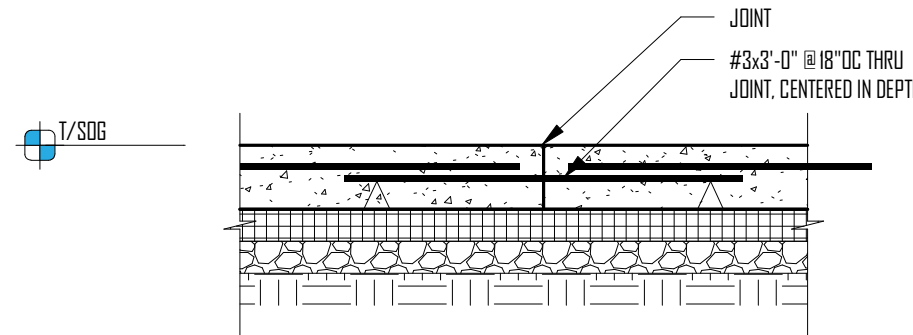
TYPICAL DETAILS

S-0.4



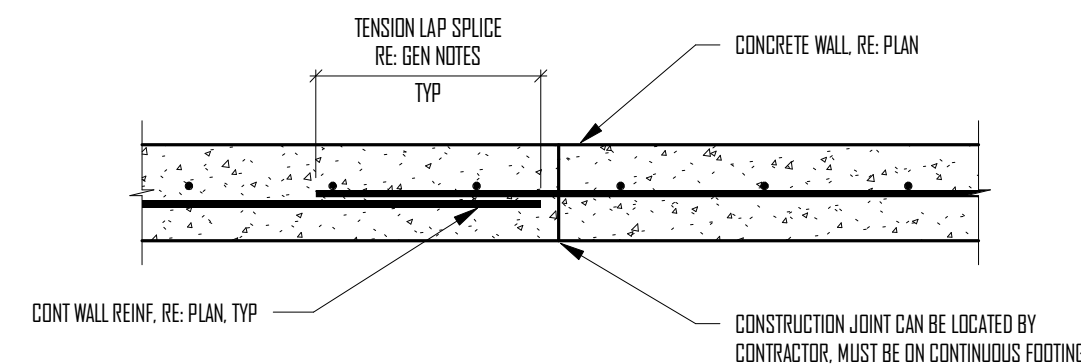
- NOTES:
1. SAWCUT CONTROL JOINT WITHIN 8 HOURS (MAX) OF PLACEMENT OR USE TOOLED JOINT DURING FINISHING (CONTRACTOR'S OPTION).
 2. PROVIDE CONTROL JOINTS AT 15' OC EACH WAY. MAXIMUM SPACING. UNO. CONSTRUCTION JOINTS CAN REPLACE CONTROL JOINTS.

TYPICAL S.O.G. CONTROL JOINT

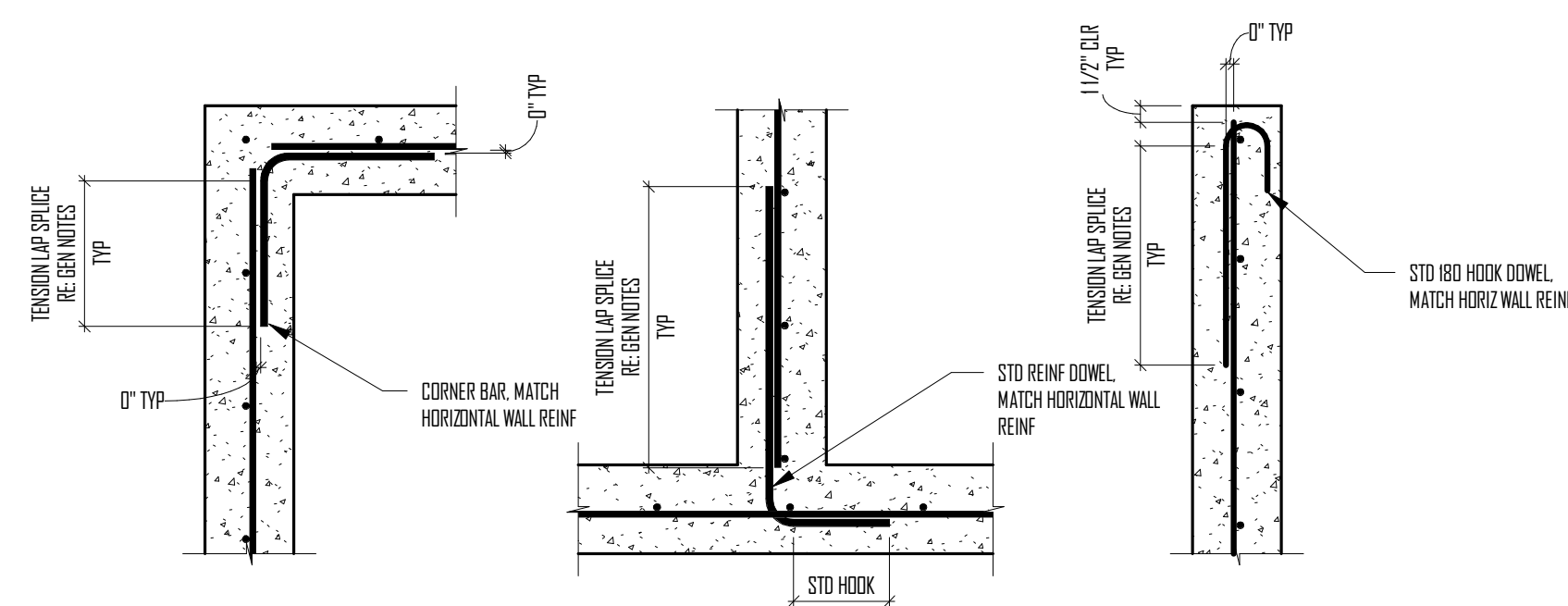


- NOTES:
1. STOP REINF. AT EACH SIDE OF CONSTRUCTION JOINT.
 2. PROVIDE CONTROL JOINTS AT 15' OC EACH WAY. MAXIMUM SPACING. UNO. CONSTRUCTION JOINTS CAN REPLACE CONTROL JOINTS.
 3. UNO. AT GARAGES, REINFORCING PASSING THROUGH CONSTRUCTION JOINTS SHALL BE EPOXY COATED.

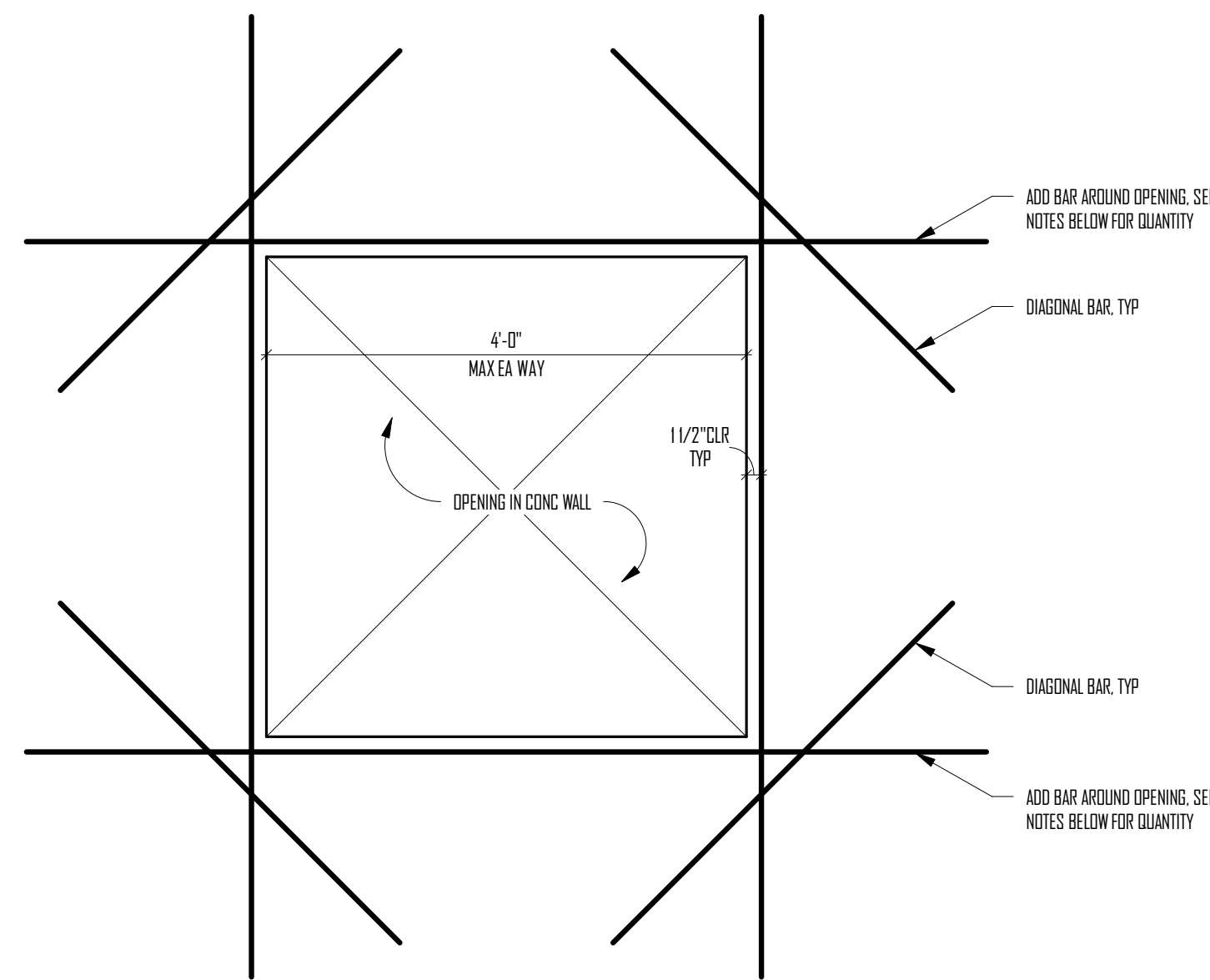
TYPICAL S.O.G. CONSTRUCTION JOINT



3 CONCRETE WALL CONSTRUCTION JOINT
3/4" = 1'-0"



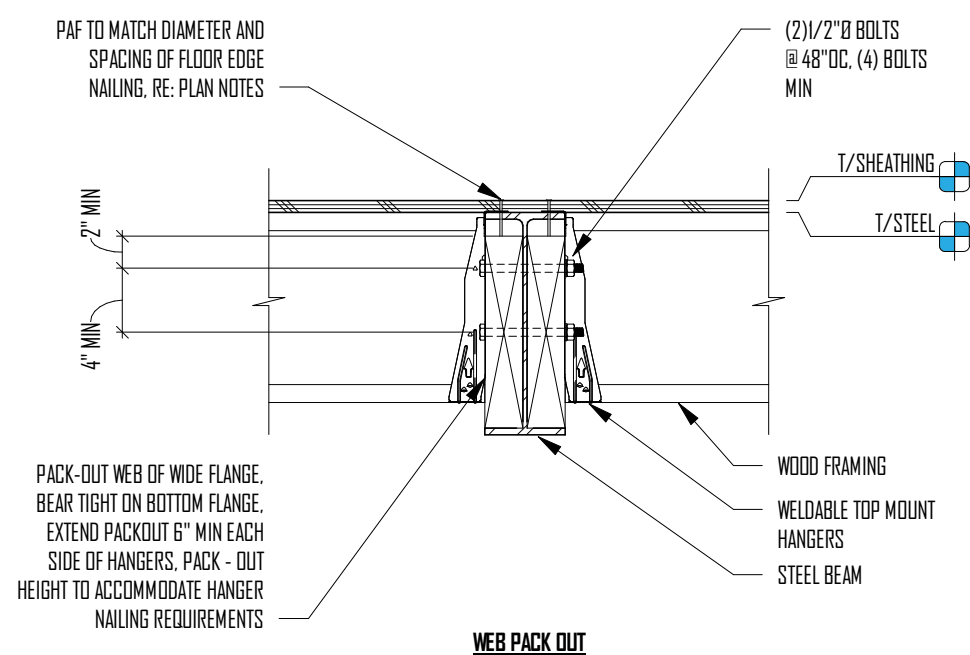
2 TYPICAL WALL REINFORCING DETAIL
3/4" = 1'-0"



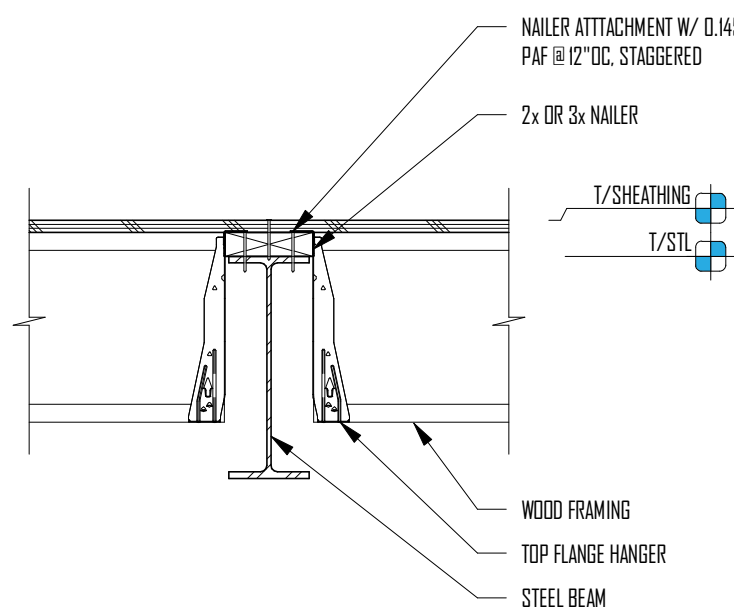
- NOTES:
1. DIAGONAL BAR SHALL BE THE SAME SIZE AS THE REINFORCEMENT IN THE WALL IN WHICH THE OPENING IS PLACED.
 2. DIAGONAL BAR SHALL BE 2.5x SPLICE LENGTH. RE: GEN NOTES.
 3. PROVIDE "U" BAR AT ALL CONCRETE EDGES THAT MATCHES WALL REINF. RE: TYPICAL DETAILS.
 4. ADD 1/2 x NUMBER OF INTERRUPTED BARS ABOVE AND BELOW OPENING EQUALING THE TOTAL HORIZONTALLY INTERRUPTED BARS.
 5. ADD 1/2 x NUMBER OF INTERRUPTED BARS TO EACH SIDE OF THE OPENING EQUALING THE TOTAL VERTICALLY INTERRUPTED BARS.
 6. IF ADD BAR CANNOT EXTEND PAST OPENING PROVIDE STD 180 DEGREE HOOK.

1 TYPICAL WALL OPENING
3/4" = 1'-0"

- TYPICAL DETAIL NOTES:
1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UNDERSTAND THE TYPICAL DETAILS AND USE THEM WHERE NECESSARY.
 2. TYPICAL DETAILS ARE NOT REFERENCED IN THE CONTRACT DOCUMENTS.



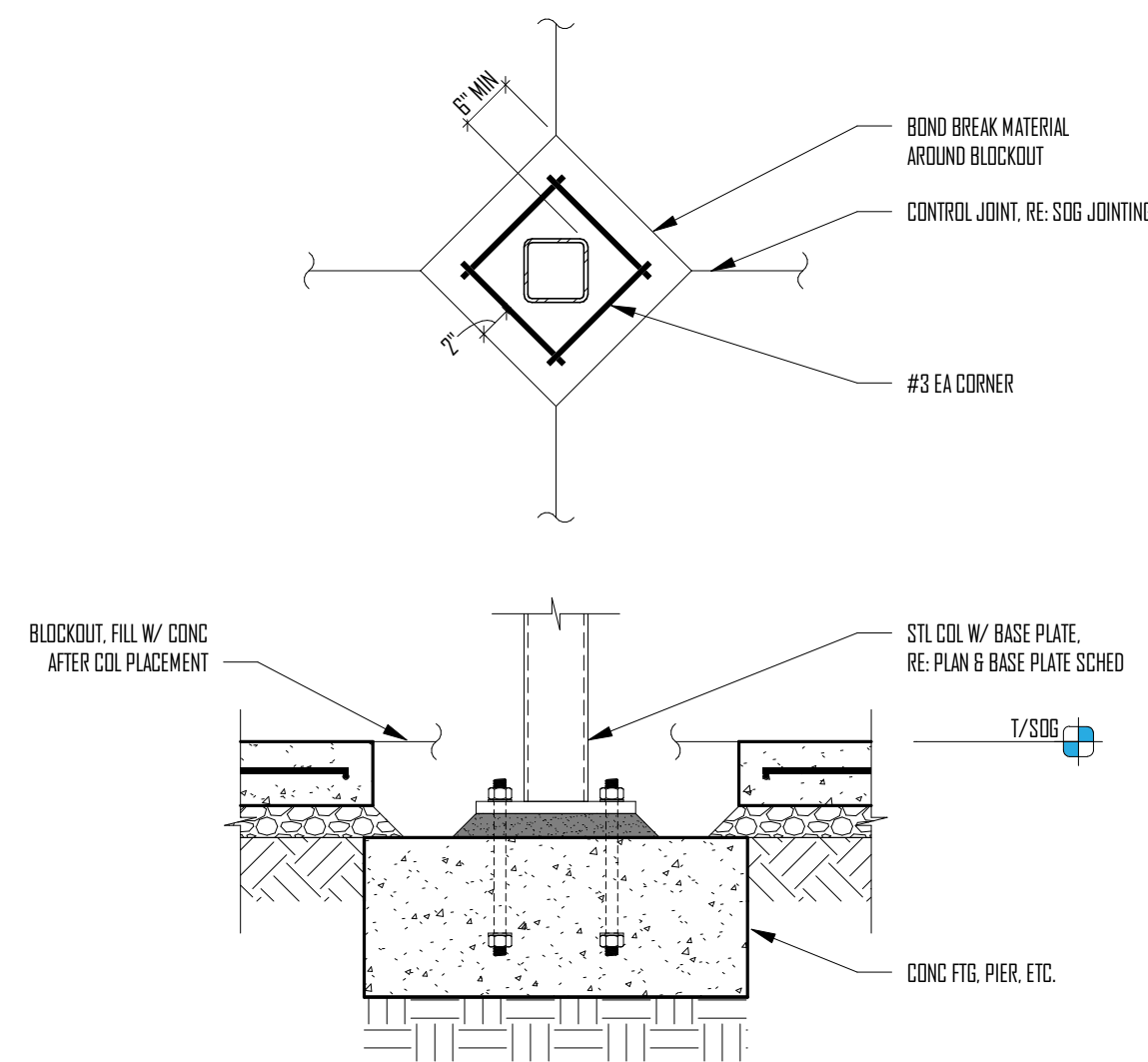
WEB PACK OUT



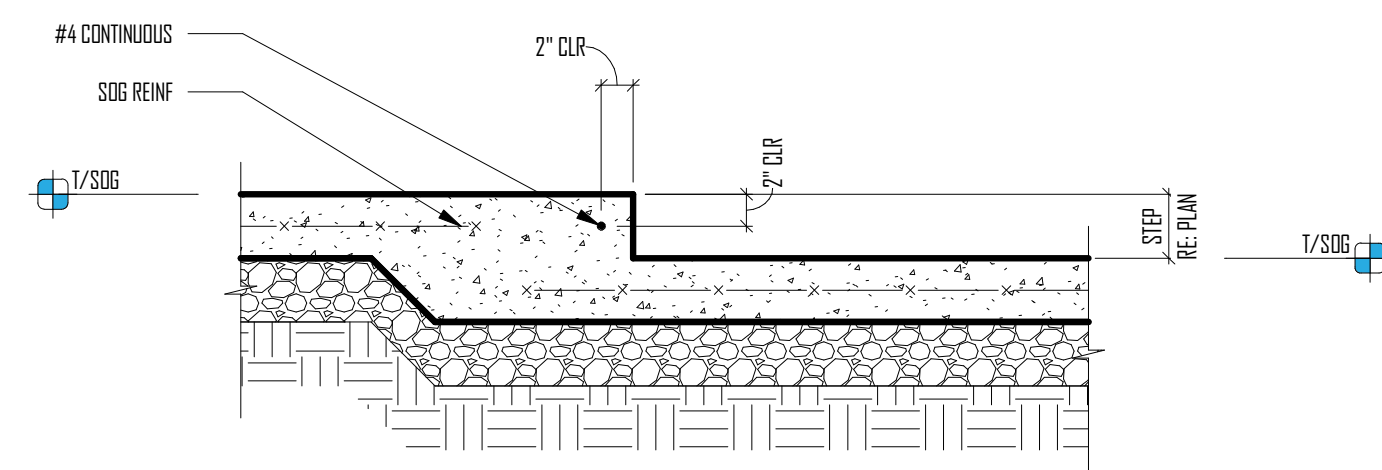
TOP FLANGE WITH NAILER

- NOTES:
1. PAF AND SELF-TAPPING SCREW DIAMETERS ARE MINIMUMS AND MAY BE INCREASED AT CONTRACTOR'S OPTION.
 2. CONTRACTOR TO VERIFY PAF LENGTH IS LONG ENOUGH TO PENETRATE THROUGH STEEL OR EMBED A MINIMUM OF 1/2" IN STEEL 3/4" AND THICKER.

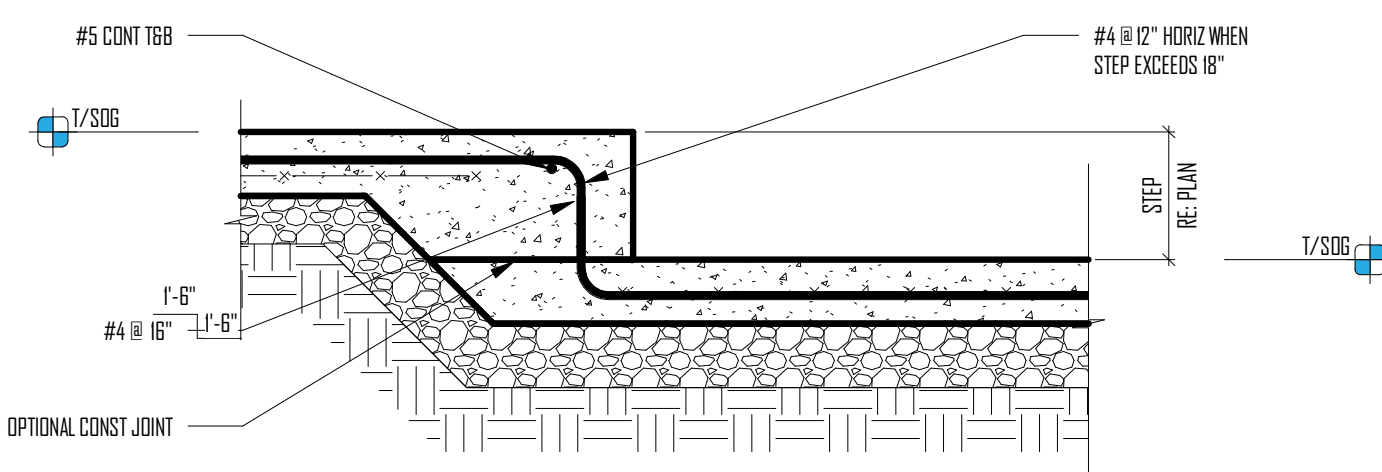
8 TYPICAL FRAMING SUPPORT AT STEEL BEAM
1" = 1'-0"



7 TYPICAL SLAB-ON-GRADE BLOCKOUT AT STEEL COLUMNS
1" = 1'-0"

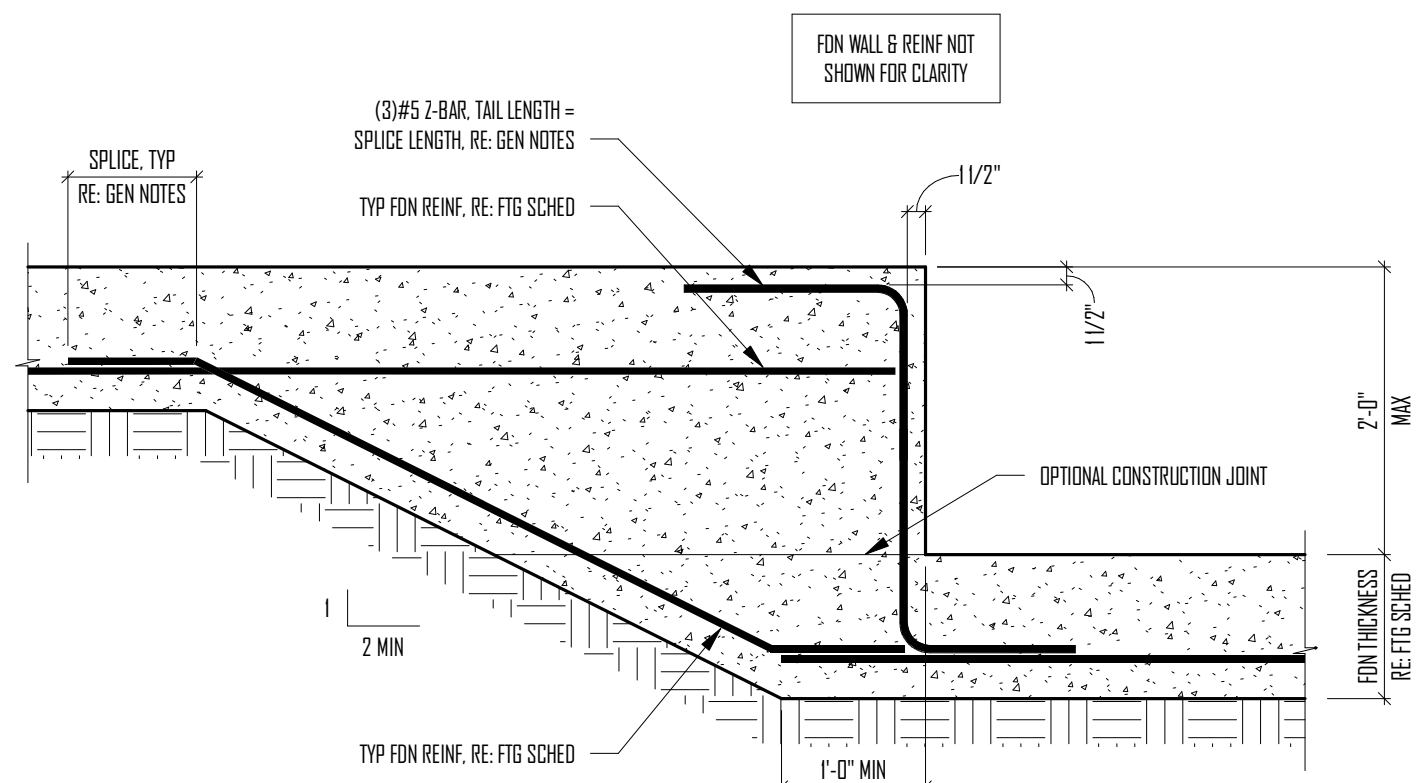


STEP = 8" OR LESS



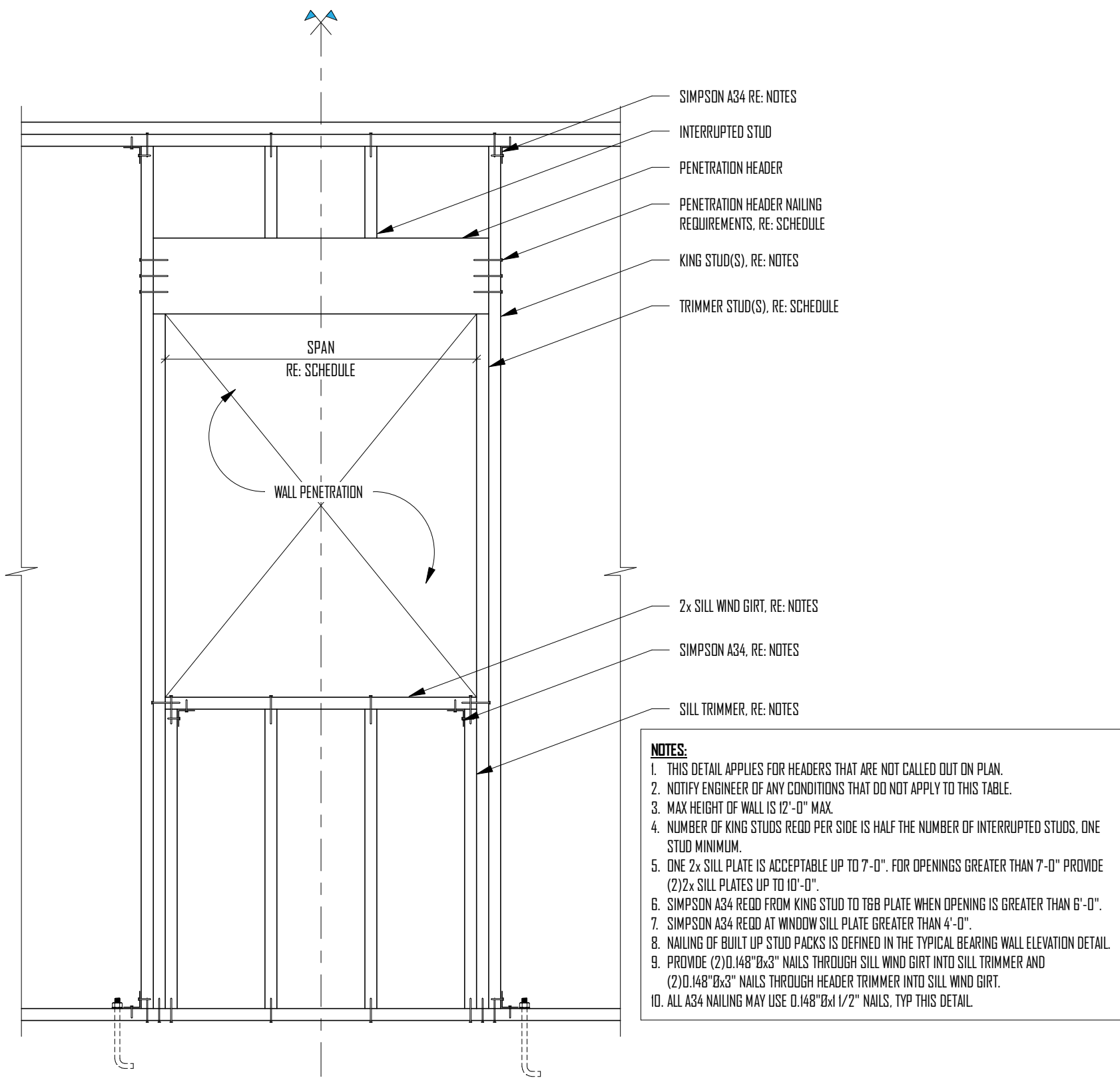
STEP MORE THAN 8" TO 24" MAX

5 TYPICAL SLAB-ON-GRADE STEPS
1" = 1'-0"

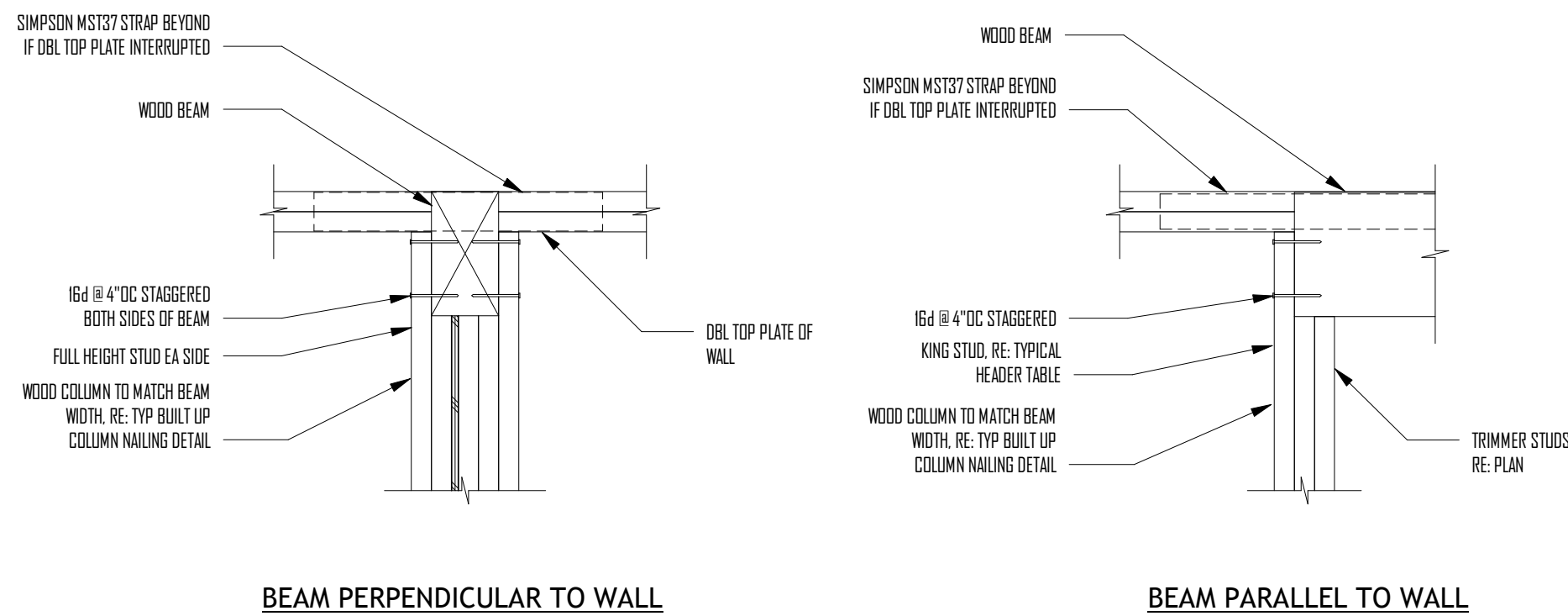


4 TYPICAL FOOTING STEP
3/4" = 1'-0"

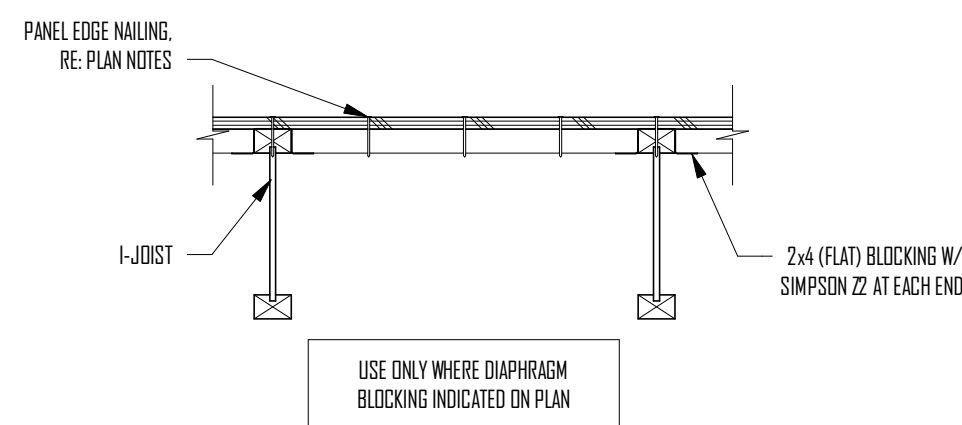
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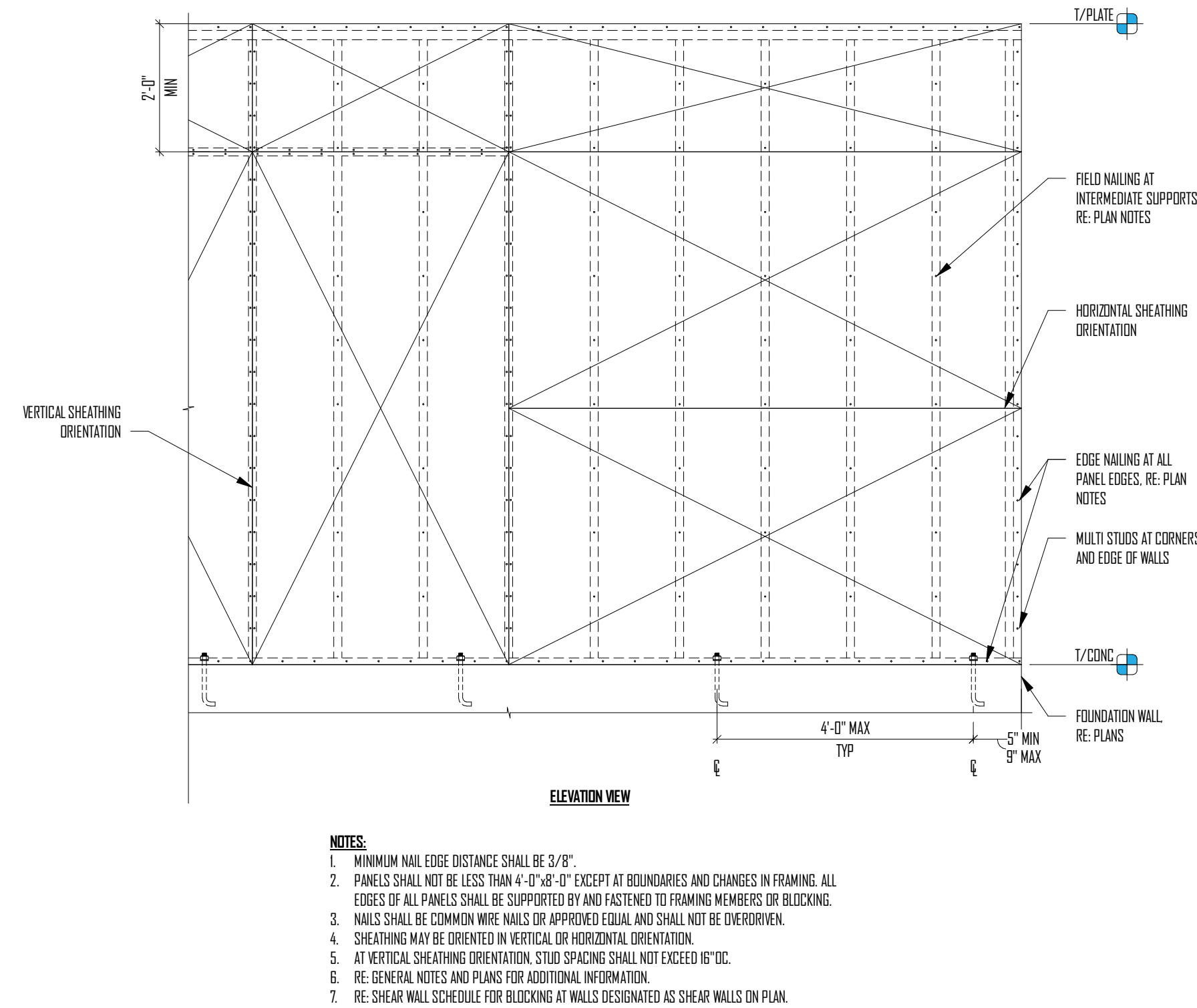
| TYPICAL HEADER SCHEDULE | | | | | |
|-------------------------|------------|----------------|------------|---------------------|-----------------|
| SPAN | 2x DFL No2 | 1 3/4" LSE LSL | 1 3/4" LUL | TRIMMER STUDS REQ'D | HEADER NAILING |
| 3'-0" | (2)2x6 | (2)16 1/2" LSL | (2)16 1/2" | 1 | (2)10.148" Bx3" |
| 4'-0" | (2)2x8 | (2)16 1/2" LSL | (2)16 1/2" | 1 | (2)10.148" Bx3" |
| 5'-0" | (3)2x8 | (2)16 1/2" LSL | (2)16 1/2" | 1 | (3)10.148" Bx3" |
| 6'-0" | (3)2x10 | (2)17 1/4" LSL | (3)16 1/2" | 1 | (3)10.148" Bx3" |
| 7'-0" | (3)2x12 | (3)17 1/4" LSL | (2)17 1/4" | 1 | (4)10.148" Bx3" |
| 8'-0" | (3)2x14 | (2)18 1/2" LSL | (2)18 1/2" | 2 | (4)10.148" Bx3" |
| 9'-0" | NP | (3)18 1/2" LSL | (2)18 1/2" | 2 | (5)10.148" Bx3" |
| 10'-0" | NP | (3)18 1/2" LSL | (3)18 1/2" | 2 | (5)10.148" Bx3" |



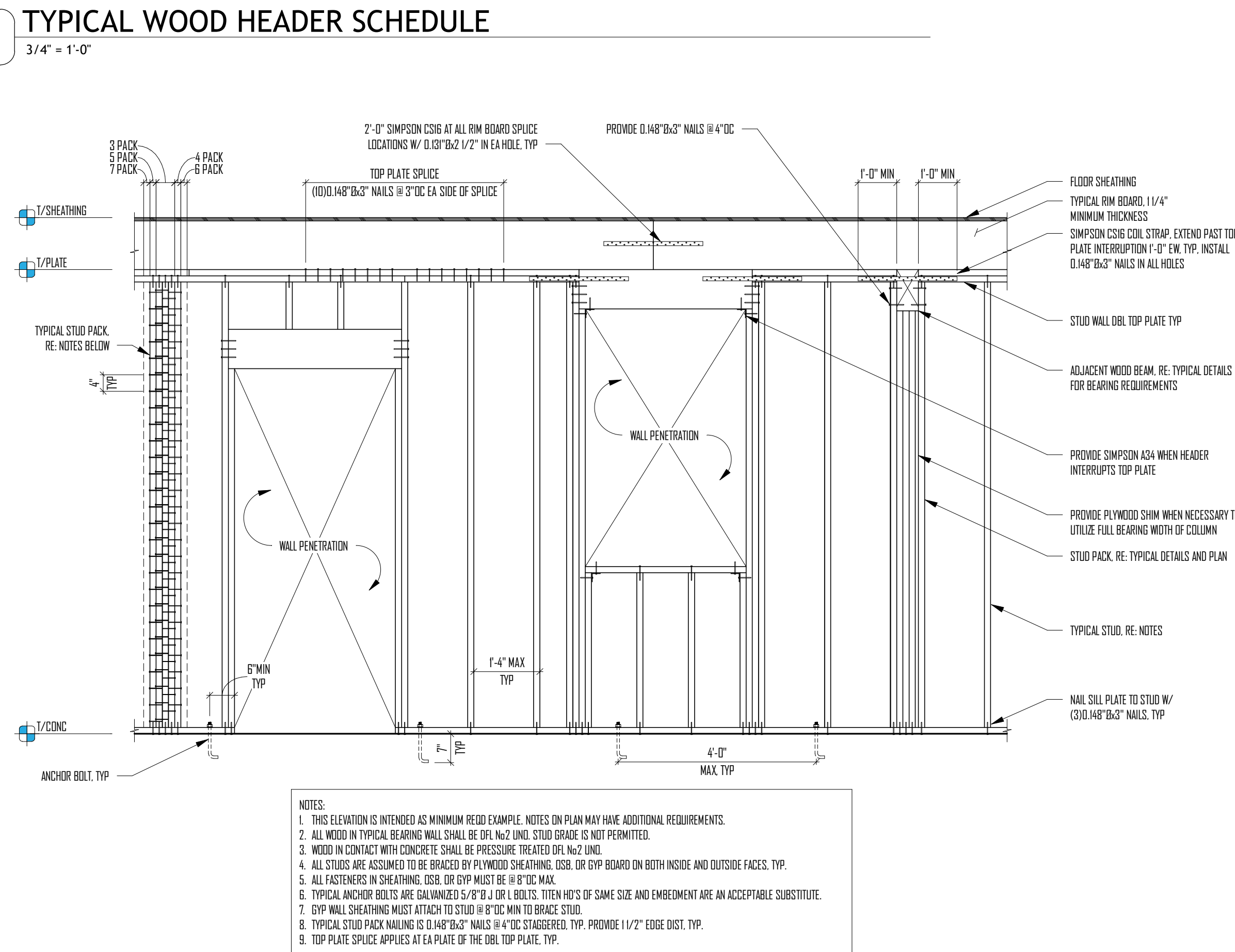
5 TYPICAL WOOD BEAM BEARING DETAIL
1" = 1'-0"



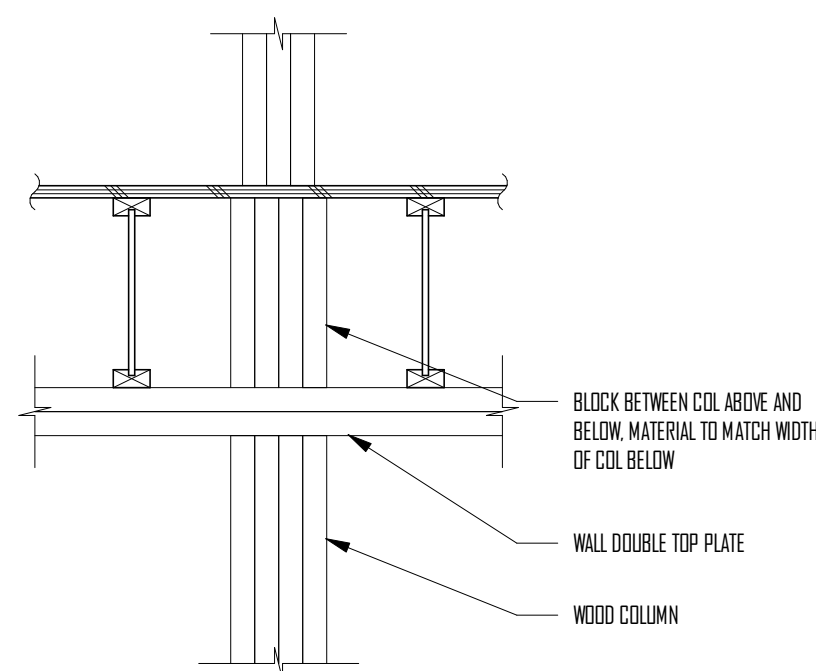
4 TYPICAL DIAPHRAGM BLOCKING AT PANEL EDGES
1" = 1'-0"



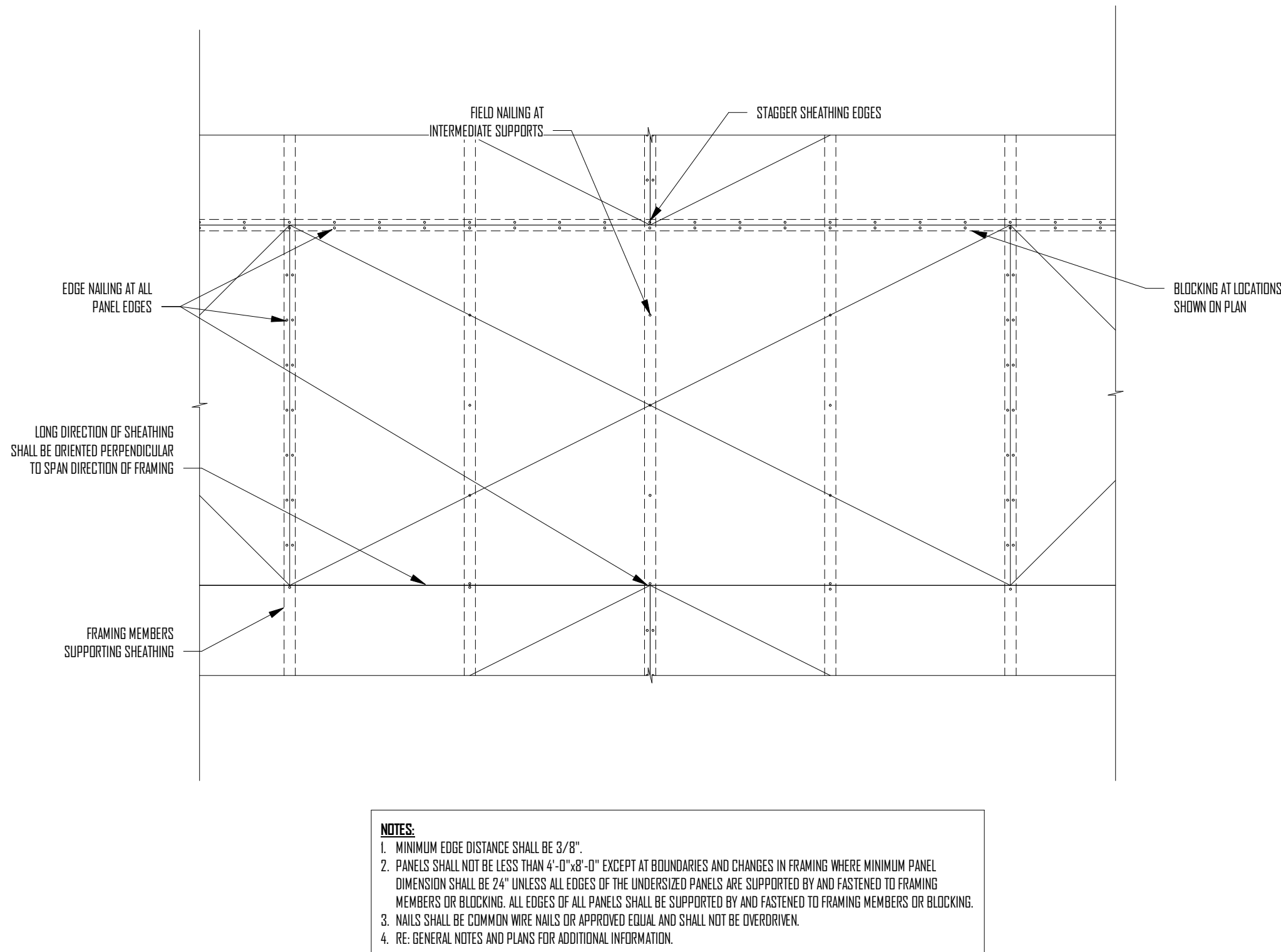
2 TYPICAL WALL SHEATHING DIAGRAM
1/2" = 1'-0"



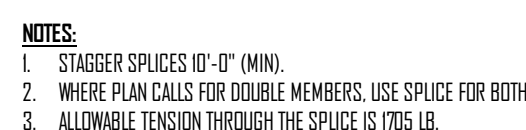
6 TYPICAL BEARING WALL ELEVATION
1/2" = 1'-0"



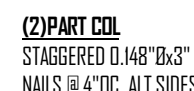
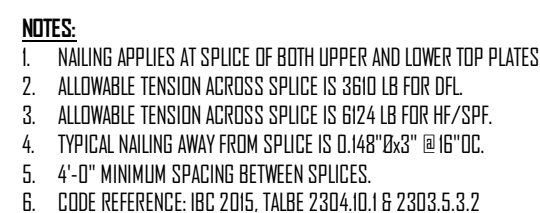
3 COLUMN SQUASH BLOCK DETAIL
1" = 1'-0"



1 TYPICAL FLOOR AND ROOF SHEATHING DIAGRAM
3/4" = 1'-0"



1" = 1'-0"

 $1'' = 1'-0''$ 

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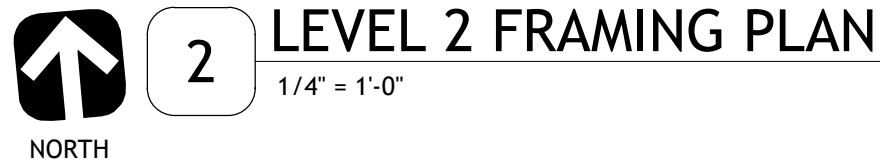


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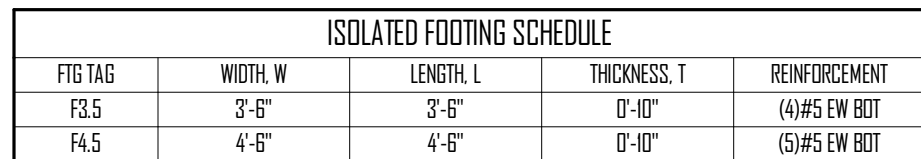


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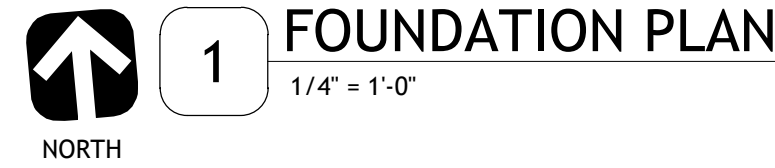
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|---|--|
| | ELEVATION MARK X → ELEVATION NUMBER XXX → SHEET NUMBER |
| | SECTION/DETAIL MARK X → DETAIL NUMBER XXX → SHEET NUMBER |
| | PLAN/DETAIL MARK X → DETAIL NUMBER XXX → SHEET NUMBER |
| | ELEVATION CALLOUT REFERENCE → 1/ R/D B/O OBJECT XX-XX → ELEVATION OF OBJECT |
| | STEPS & SLOPES IN DECKS & SLABS X → STEP HEIGHT |
| | TOP OF WALL STEP |
| | LEDGE STEP |
| | BOTTOM OF WALL STEP |
| | SLAB OR DECK SPAN DIRECTION |
| | MOMENT CONNECTION |
| | BEAM SPLICE CONNECTION |
| | BEAM POCKET CONNECTION |
| | BEAM EMBED CONNECTION |
| | COLUMN TAG CX → COLUMN SIZE, RE: PLAN DPX → STEEL BASE PLATE, RE: BASE PLATE SCHED |
| | FOOTING TAG FX → FTS SIZE, RE: SCHED XX-XX → 1/FTG ELEVATION |
| | KEYNOTE |
| | CONCRETE WALL TAG WX → WALL TYPE, RE: WALL SCHED |
| | WOOD JOIST OR BEAM HANGER X → HANGER TYPE, RE: HANGER SCHED |
| | STEEL BEAM/GIRDER SIZE → BEAM/GIRDER SIZE DESIGNATION XX → # IF HEADED ANCHOR STUDS VR → SHEAR REACTION LEFT (KIPS) VR → SHEAR REACTION RIGHT (KIPS) [XX-XX] → 1/STL ELEVATION |
| | WOOD BEAM/GIRDER [XX-XX] → 1/BM ELEVATION, IF SHOWN |
| | WOOD JOIST/RAFTER/PREMANUFACTURED ROOF TRUSS |
| | SIMPSON COIL STRAP, RE: PLAN & KEYNOTES |
| | CONCRETE WALL |
| | STUD WALL |
| | WALL BELOW |
| | SHEAR WALL NOTATION SW-X → SHEAR WALL TYPE, RE: PLAN & SHEAR WALL X-X' → MINIMUM SHEAR WALL LENGTH HD → HELODDING, RE: HELODDING DETAIL, IF NONE ARE SHOWN, NO HELODDINGS REQ'D AT THAT LOC. |
| | SHEAR WALL BELOW |
| | CONCRETE COLUMN ABOVE |
| | STEEL COLUMN ABOVE |
| | WOOD COLUMN ABOVE |
| | COLUMNS BELOW |
| MATERIAL IDENTIFICATION IN SECTION | |
| | CONCRETE |
| | STEEL |
| | SILL UNSTIRRED |
| | SOIL FILL |
| | GRAVEL |
| | STONE VENEER |



- LEVEL 2 PLAN NOTES:**
1. TYPICAL FLOOR IS FINISHES, PER ARCH. OVER 1/2" CONG TOPPING SLAB OVER 3/4" TIG OSB/PLYWOOD SHEATHING OVER WOOD 1-JOIST FRAMING. RE: GENERAL NOTES FOR SHEATHING REQUIREMENTS. FLOOR SHEATHING IS ATTACHED TO JOISTS WITH 0.131"X2 1/2"X96"OC AT PANEL EDGES & 0.131"X2 1/2"X24"OC IN FIELD. UNLESS
 2. TYPICAL EXTERIOR WALL IS FINISHES, PER ARCH. OVER 1/2" WALL SHEATHING OVER 2x6 DFL NO STUDS@16"OC. WALL SHEATHING IS ATTACHED W/ 0.131"X2 1/2"X96"OC AT PANEL EDGES & 0.131"X2 1/2"X12"OC IN FIELD UNLESS DESIGNATED AS A SHEAR WALL. RE: SHEAR WALL SCHEDULE FOR SHEAR WALL NAILING.
 3. SHEET CONSTRUCTION IS 2x DECKING OVER WOOD JOIST FRAMING. RE: GENERAL NOTES FOR DECKING REQUIREMENTS. FASTEN DECKING TO FRAMING W/ (2)H180 WOOD SCREWS EA JOIST.
 4. TYPICAL STUD PACK IS (3)2x6 DFL NO.2. UN: RE: TYPICAL DETAILS FOR BUILT-UP STUD PACK NAILING.
 5. NOT ALL HEADERS ARE SHOWN ON PLAN. RE: TYPICAL WOOD HEADER SCHEDULE FOR HEADER SIZING.
 6. ALL MATERIAL SCHEDULED IS 3/4" THICK, UNLESS
 7. RE: PLAN FOR T/5 SHEATHING & T WALL ELEVATIONS.
 8. RE: ARCH FOR FINAL WINDOW & DOOR LOCATIONS.
 9. COORDINATE JOIST LAYOUT WITH LIGHTING. RE: ARCH.
 10. RE: 5-0.1 TO 5-0.3 FOR DESIGN CRITERIA, GENERAL NOTES, & LOAD REQS.
 11. RE: 5-0.4 TO 5-0.6 FOR TYPICAL DETAILS.
 12. RE: 5-0.0 FOR SHEAR WALL, HOLDOWN, BASE PLATE, & HANGER SCHEDULES.



| CONTINUOUS FOOTING SCHEDULE | | | |
|-----------------------------|----------|--------------|----------------|
| FTG TAG | WIDTH, W | THICKNESS, T | REINFORCEMENT |
| FC16 | 1'-4" | 0'-10" | (2)#5 CONT BOT |
| FC24 | 2'-0" | 0'-10" | (3)#5 CONT BOT |



- FOUNDATION PLAN NOTES:**
1. TYPICAL FLOOR CONSTRUCTION IS 4" CONCRETE SLAB-ON-GRADE WITH #3@18"OC EW, CHAIRCED TO MID-DEPTH.
 2. TYPICAL FOUNDATION CONSTRUCTION IS 8" CONCRETE FOUNDATION WALLS ON CONTINUOUS SPREAD FOOTINGS. THE FOOTING HAS BEEN DESIGNED PER GEOTECH RECOMMENDATIONS FOR BEARING ON STRUCTURAL FL.
 3. RE: GEOTECH REPORT FOR SUBGRADE PREPARATION INCLUDING OVER-EXCAVATION & STRUCTURAL FL. REQUIREMENTS.
 4. CONTINUOUS FOUNDATION WALLS HAVE BEEN DESIGNED TO SPAN LOCAL ANOMALIES RESULTING IN AN UNSUPPORTED LENGTH OF X'-X" PER THE GEOTECH REPORT, RE: DESIGN CRITERIA.
 5. RE: STUD PAD PACK # 0324 DFL DET. NO2, UNO, RE: TYPICAL DETAILS FOR BUILT-UP STUD PAD NAILING.
 6. RE: TYPICAL DETAILS FOR FOOTING STEP.
 7. RE: PLAN FOR 1/4"TG ELEVATIONS.
 8. RE: S-0.1 TO S-3.0 FOR DESIGN CRITERIA, GENERAL NOTES, & LOAD KEYS.
 9. RE: S-0.4 TO S-0.6 FOR TYPICAL DETAILS.
 10. RE: S-3.0 FOR FOOTING SCHEDULE.
 11. RE: S-5.0 & S-5.1 FOR SHEAR WALL, HOLDOWN, RETAINING WALL, & BASE PLATE SCHEDULES.

ELEVATION MARK

 X → ELEVATION NUMBER
 XXX → SHEET NUMBER

SECTION/DETAIL MARK

 X → DETAIL NUMBER
 XXX → SHEET NUMBER

PLAN/DETAIL MARK

 X → DETAIL NUMBER
 XXX → SHEET NUMBER

ELEVATION CALLOUT

 REFERENCE → 1/ OR B/ OBJECT
 XX-XX → ELEVATION OF OBJECT

STEPS & SLOPES IN DECKS & SLABS

 X' → STEP HEIGHT

TOP OF WALL STEP


LEDGE STEP


BOTTOM OF WALL STEP


SLAB OR DECK SPAN DIRECTION


MOMENT CONNECTION


BEAM SPJUCE CONNECTION


BEAM POCKET CONNECTION


BEAM EMBED CONNECTION


COLUMN TAG
 CX → COLUMN SIZE, RE: PLAN
 BPX → STEEL, BASE PLATE, RE: BASE PLATE SCHED

FOOTING TAG
 FX → FTS SIZE, RE: SCHED
 XX-XX' → 1/FTB ELEVATION

KEYNOTE


CONCRETE WALL TAG


WOOD JOIST OR BEAM HANGER

 X → HANGER TYPE, RE: HANGER SCHED

STEEL BEAM/GIRDER
 SIZE → BEAM/GIRDER SIZE DESIGNATION
 (XX) → # OF HEADED ANCHOR STUDS
 R → SHEAR REACTION LEFT (KIPS)
 R' → SHEAR REACTION RIGHT (KIPS)
 [DXX-XX'] → 1/STL ELEVATION

WOOD BEAM
 [DXX-XX'] → 1/BM ELEVATION, IF SHOWN

WOOD JOIST/RFTER/PREMANUFACTURED ROOF TRUSS


SIMPSON COIL STRAP, RE: PLAN & KEYNOTES


CONCRETE WALL


STUD WALL


WALL BELOW


SHEAR WALL NOTATION
 SW-X → SHEAR WALL TYPE, RE: PLAN & SHEAR WALL SCHED
 X-X' → MINIMUM SHEAR WALL LENGTH
 HD → HOLDDOWN, RE: HOLDDOWN DETAIL, IF NONE AS SHOWN, NO HOLDDOWNS REQ'D AT THAT LO

SHEAR WALL BELOW


CONCRETE COLUMN ABOVE

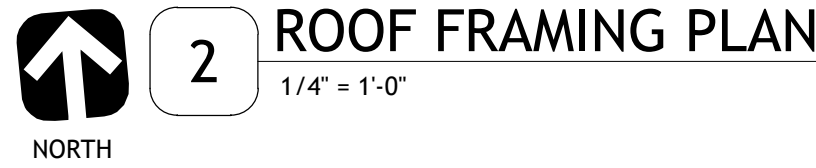

STEEL COLUMN ABOVE


WOOD COLUMN ABOVE


COLUMNS BELOW

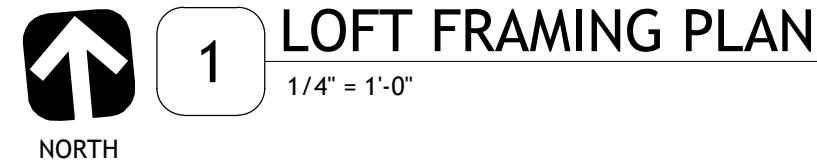

MATERIAL IDENTIFICATION IN SECTION

| | | | | | |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| CONCRETE | STEEL | SOIL UNDISTURBED | SOIL FILL | GRAVEL | STONE VENEER |



ROOF PLAN NOTES:

1. TYPICAL ROOF FINISHES, PER ARCH. OVER 3/4" OSB/PLYWOOD SHEATHING OVER WOOD 1-JOIST RAFTERS.
2. ROOF EAVES FINISHES, PER ARCH. SHEATHING REQUIREMENTS. ROOF SHEATHING IS ATTACHED W/ 0.131"x2 1/2"x96"OC AT PANEL EDGES & 0.131"x2 1/2"x12"x12"OC IN FIELD, UNO.
3. RE. ARCH FOR WALL TOP PLATE ELEVATIONS.
4. RE. ARCH FOR WALL TOP ELEVATIONS ON PLAN.
5. RE. ARCH FOR WALL HEADER SCHEDULE FOR HEADER SIZING.
6. ALL LVL MATERIAL SHALL BE 1 3/4" THICK, UNO.
7. RE. ARCH FOR FINAL WINDOW & DOOR LOADINGS.
8. COORDINATE JOIST LAUNCH WITH LIGHTING, RE. ARCH.
9. RE. S-0.1 TO S-0.3 FOR DESIGN CRITERIA, GENERAL NOTES, & LOAD KEYS.
10. RE. S-0.4 TO S-0.6 FOR TYPICAL DETAILS.
11. RE. S-0.5 FOR HANGER SCHEDULE.



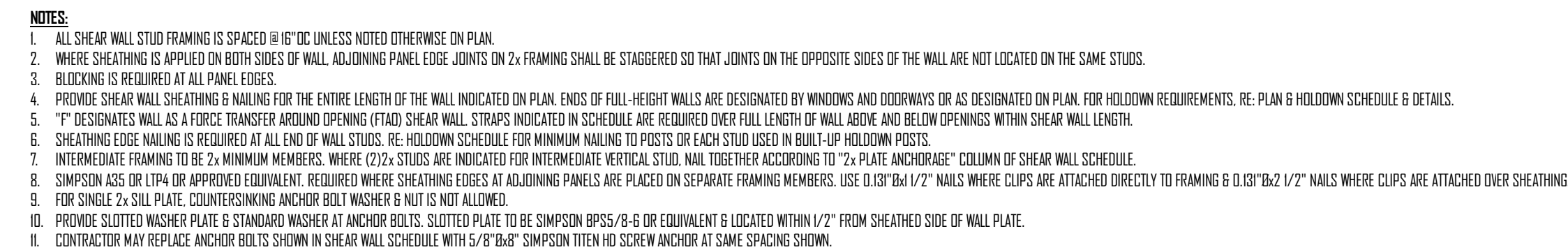
LOFT PLAN NOTES:

- 1. TYPICAL FINISH IS FINISHES, PER ARCH. OVER 3/4" TAG OSB/PLYWOOD SHEATHING OVER WOOD JOISTS.
- 2. RE: GENERAL NOTES FOR SHEATHING REQUIREMENTS, FLOOR SHEATHING IS ATTACHED W/ GLUE & NAILS W/ 0.131X2 1/2" 0/6" OCL AT PANEL EDGES, & 0.131X2 1/2" 0/6" 12" O/C IN FIELD, UNO.
- 3. TYPICAL EXTERIOR WALL IS FINISHES, PER ARCH. OVER 1/2" WALL SHEATHING OVER 2x6 DFL NO.2 SUDENOS16"OOC WALL SHEATHING IS ATTACHED W/ 0.131X2 1/2" 0/6" OCL AT PANEL EDGES & 0.131X2 1/2" 1/2" 0/12" O/C IN FIELD.
- 4. RE: GENERAL NOTES FOR SHEATHING REQUIREMENTS, SHEATHING IS ATTACHED W/ GLUE & NAILS W/ 0.131X2 1/2" 0/6" OCL AT PANEL EDGES, & 0.131X2 1/2" 0/6" 12" O/C IN FIELD.
- 5. TYPICAL STUD PACK IS (3/2x6 DFL NO.2, UNO. RE: TYPICAL DETAILS FOR BUILT-UP STUD PACK NAILING.
- 6. NOT ALL HEADERS ARE SHOWN ON PLAN, RE: TYPICAL WOOD HEADER SCHEDULE FOR HEADER SIZING.
- 7. ALL LIV MATERIAL SHALL BE 1 3/4" THICK, UNO.
- 8. RE: PLAN FOR T SHEATHING ELEVATIONS.
- 9. RE: ARCH FOR FINAL WINDOW & DOOR LOCATIONS.
- 10. COORDINATE JOIST LAYOUT WITH LIGHTING, RE: ARCH.
- 11. RE: S-4.0 TO S-0.3 FOR DESIGN CRITERIA, GENERAL NOTES, & LOAD KINGS.
- 12. RE: S-4.0 TO S-0.6 FOR TYPICAL DETAILS.
- 13. RE: S-5.0 FOR SHEAR WALL, HOLDDOWN, & HANGER SCHEDULES.





2 HANGER SCHEDULE



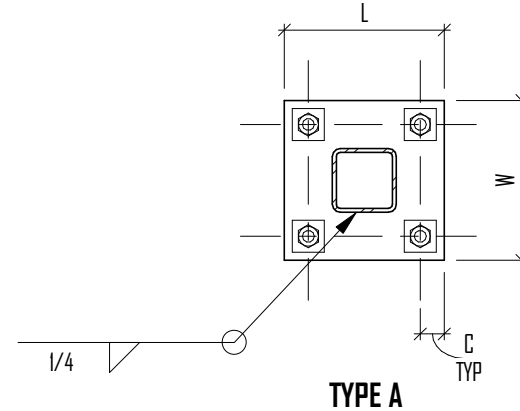
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SCHEDULES

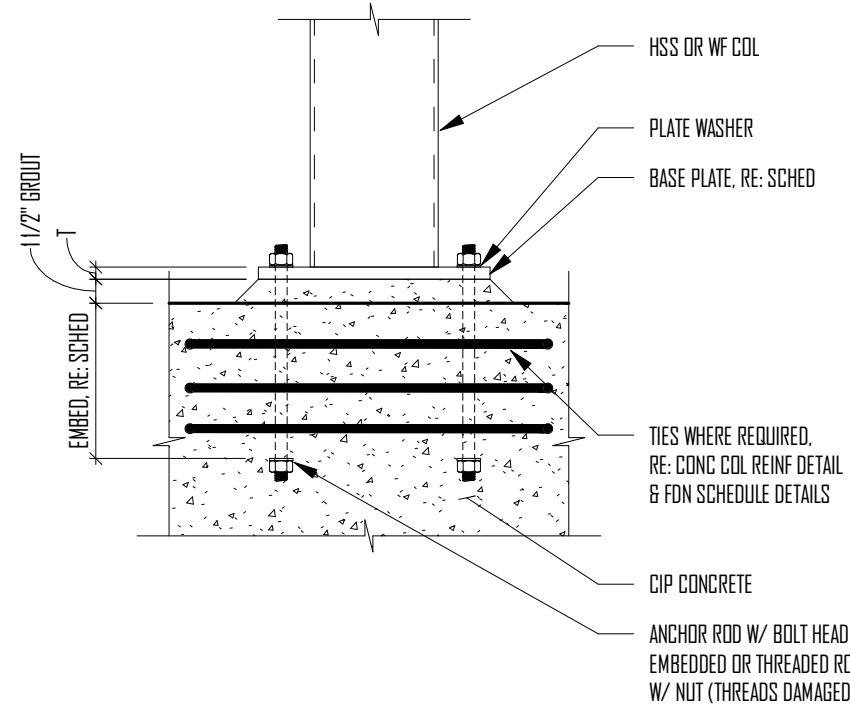
S-5.1

| BASE PLATE SCHEDULE | | | | | | ANCHOR RODS | |
|---------------------|------|-----|-----|--------------|--------|-------------|-------|
| MARK | TYPE | L | W | THICKNESS, T | NUMBER | SIZE | EMBED |
| BP1 | A | 10" | 10" | 3/4" | 4 | 3/4"D | 8" |
| BP2 | A | 10" | 6" | 3/4" | 4 | 3/4"D | 8" |

NOTE:
L IN LIEU OF CAST-IN ANCHOR RODS. IT IS ACCEPTABLE TO PROVIDE AN EMBED PLATE UNDER COLUMN BASE PLATE.
A. REPLACE ANCHOR RODS W/ WELDED THREADED STUDS TO MATCH ANCHOR ROD DIAMETER SPECIFIED IN SCHEDULE.
B. FIELD WELD THREADED STUDS TO EMBED PLATE W/ 1/4" FILLET WELD ALL AROUND.
C. EMBED PLATE TO BE 1/2" THICK & MATCH BASE PLATE DIMENSIONS W/ (4) 3/4"x8x6" HSA ALIGNED W/ THREADED STUDS ABOVE.

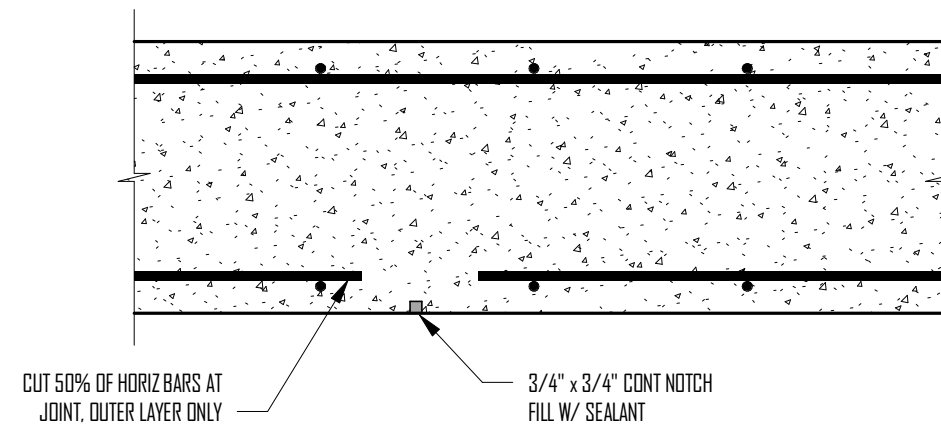
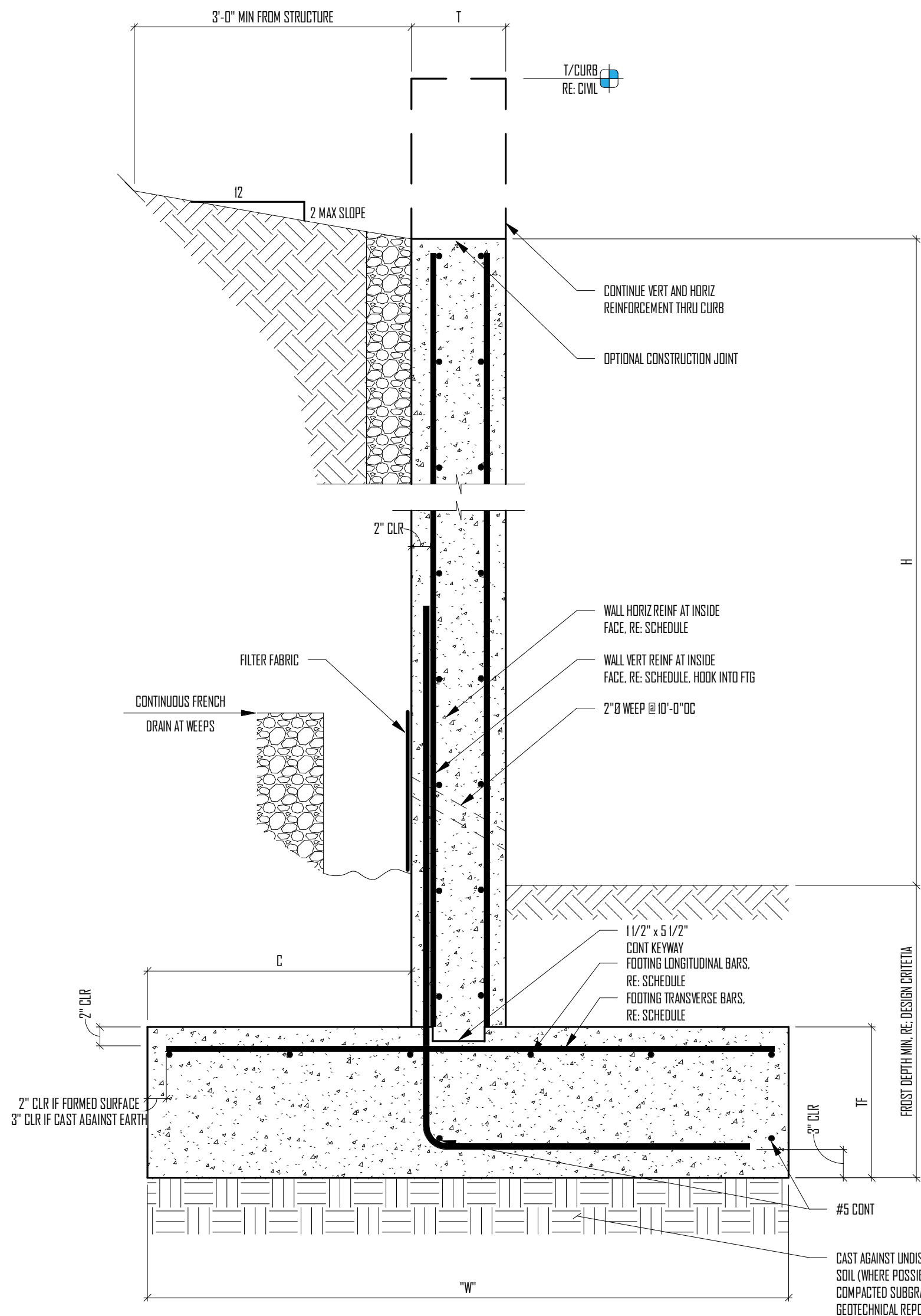


| ANCHOR ROD REQUIREMENTS | | | | | |
|-------------------------|-----------------|----------------------------|---------------------------------|----------------|-----------------------|
| ANCHOR ROD Ø (in) | MAX HOLE Ø (in) | MIN PLATE WASHER SIZE (in) | MIN PLATE WASHER THICKNESS (in) | MIN EMBED (in) | EDGE DISTANCE, C (in) |
| 3/4 | 15/16 | 2 | 1/4 | 8 | 1 1/2 |

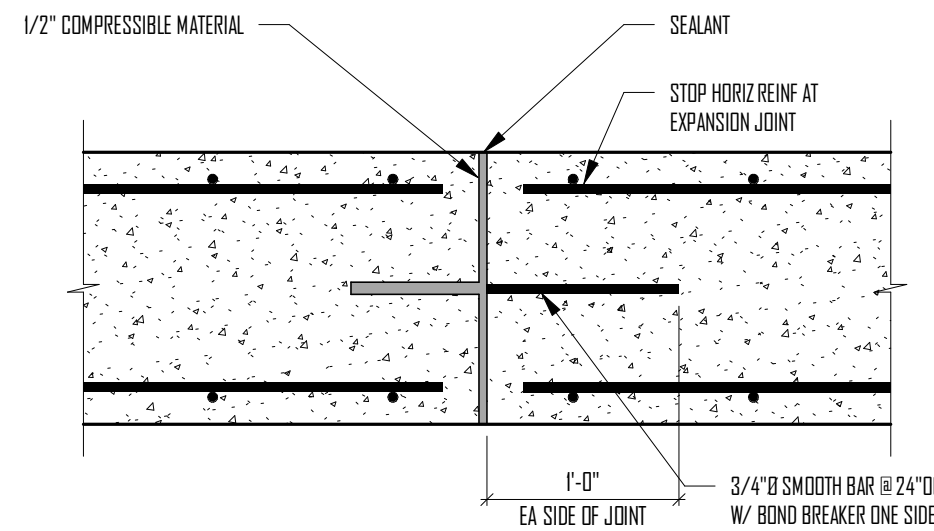


2 BASE PLATE SCHEDULE & DETAILS

1" = 1'-0"



CONTROL JOINT - SPACING 25 FT (+)



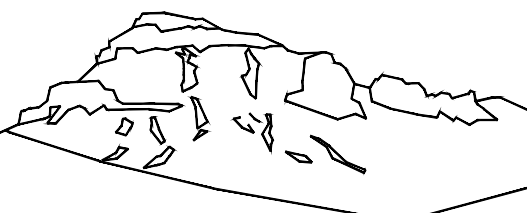
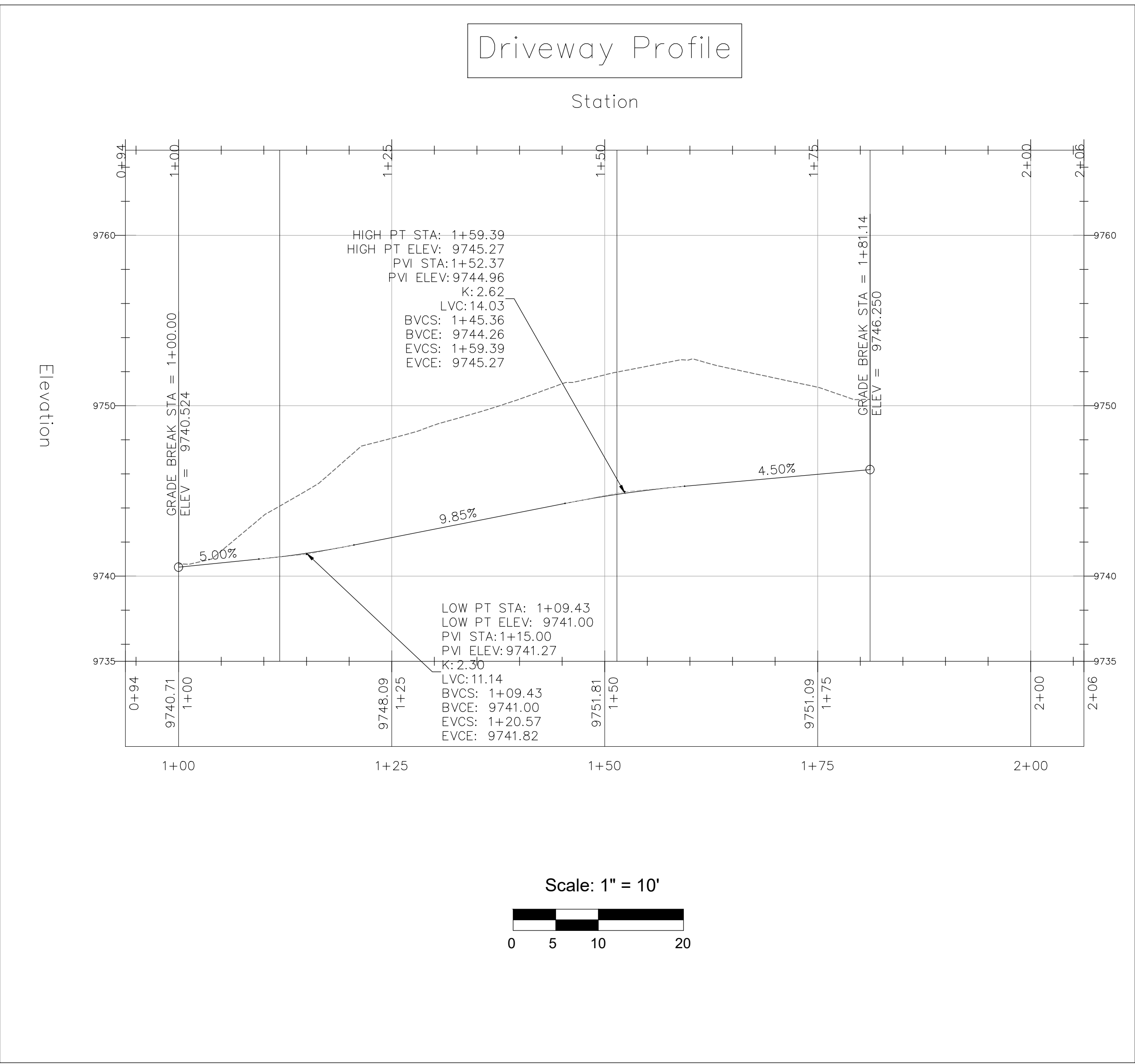
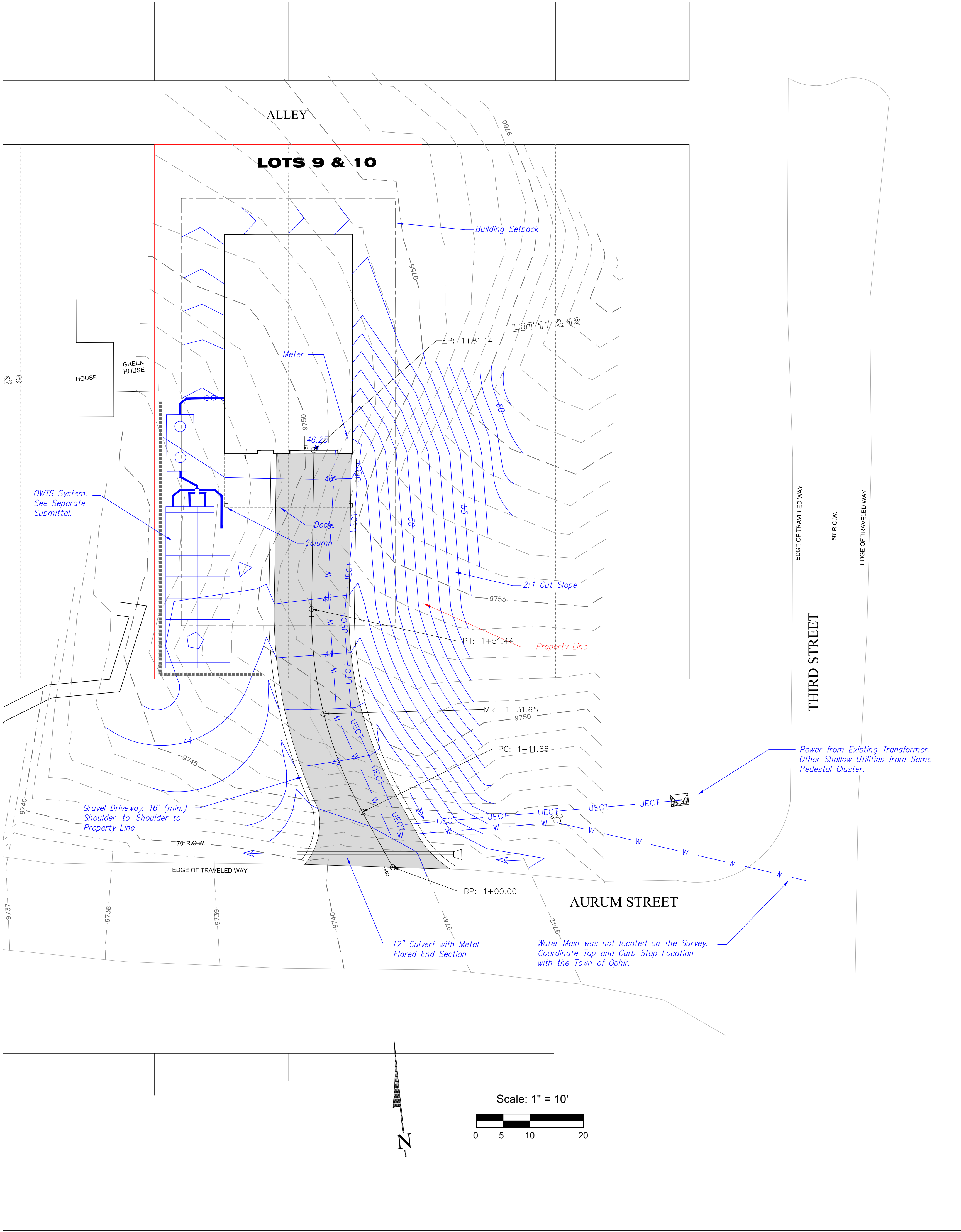
EXPANSION JOINT - SPACING 100 FT (+)

CANTILEVERED RETAINING WALL SCHEDULE

| WALL/FOOTING DIMENSIONS | | | | | WALL REINFORCING | | FOOTING REINFORCING | |
|-------------------------|-----|-------|-------|-----|------------------|------------|---------------------|--------------------|
| H | TF | C | W | T | HORIZ REINF | VERT REINF | TRANSVERSE REINF | LONGITUDINAL REINF |
| 2'-0" | 12" | 2'-0" | 3'-0" | 8" | #4 @ 12" | -- | #5 @ 14" | (3)#5 |
| 4'-0" | 16" | 3'-0" | 4'-0" | 8" | #5 @ 16" | #5 @ 16" | #5 @ 10" | (5)#5 |
| 6'-0" | 16" | 4'-3" | 6'-6" | 10" | #6 @ 18" | #5 @ 14" | #6 @ 14" | (5)#5 |

1 RETAINING WALL SCHEDULE & DETAILS

1" = 1'-0"



Uncompahgre
Engineering, LLC

P.O. Box 3945
Telluride, CO 81435
970-729-0683

SUBMISSIONS:
SUBMITTAL 2022-06-04

Hope Residence
Lots 9 & 10
Aurum Street
Ophir, CO



CONTRACTOR TO REVIEW AND COMPARE ALL
CHAPTERS AND INTERDISCIPLINARY DRAWINGS
AND REPORT ANY DISCREPANCIES TO THE
ARCHITECT PRIOR TO ANY FIELD WORK BEING
DONE IN ACCORDANCE WITH AIA DOCUMENT A201

Site Grading
with
Driveway Profile

C1



TOWN OF OPHIR
P.O. BOX 683
OPHIR, CO 81426
(970) 728-4943
manager@ophir.us

INVOICE

BILL TO

Gregory & Jeffrey Hope
PO Box 139
Telluride, CO 81435

INVOICE # 15746**DATE** 01/15/2022**DUE DATE** 01/15/2022**TERMS** Due on receipt

| DATE | DESCRIPTION | QTY | RATE | AMOUNT |
|------|---|-----|----------|----------|
| | Building Department:Water tap fee Water tap fee | 1 | 7,000.00 | 7,000.00 |

PAYMENT
BALANCE DUE

7,000.00

\$0.00