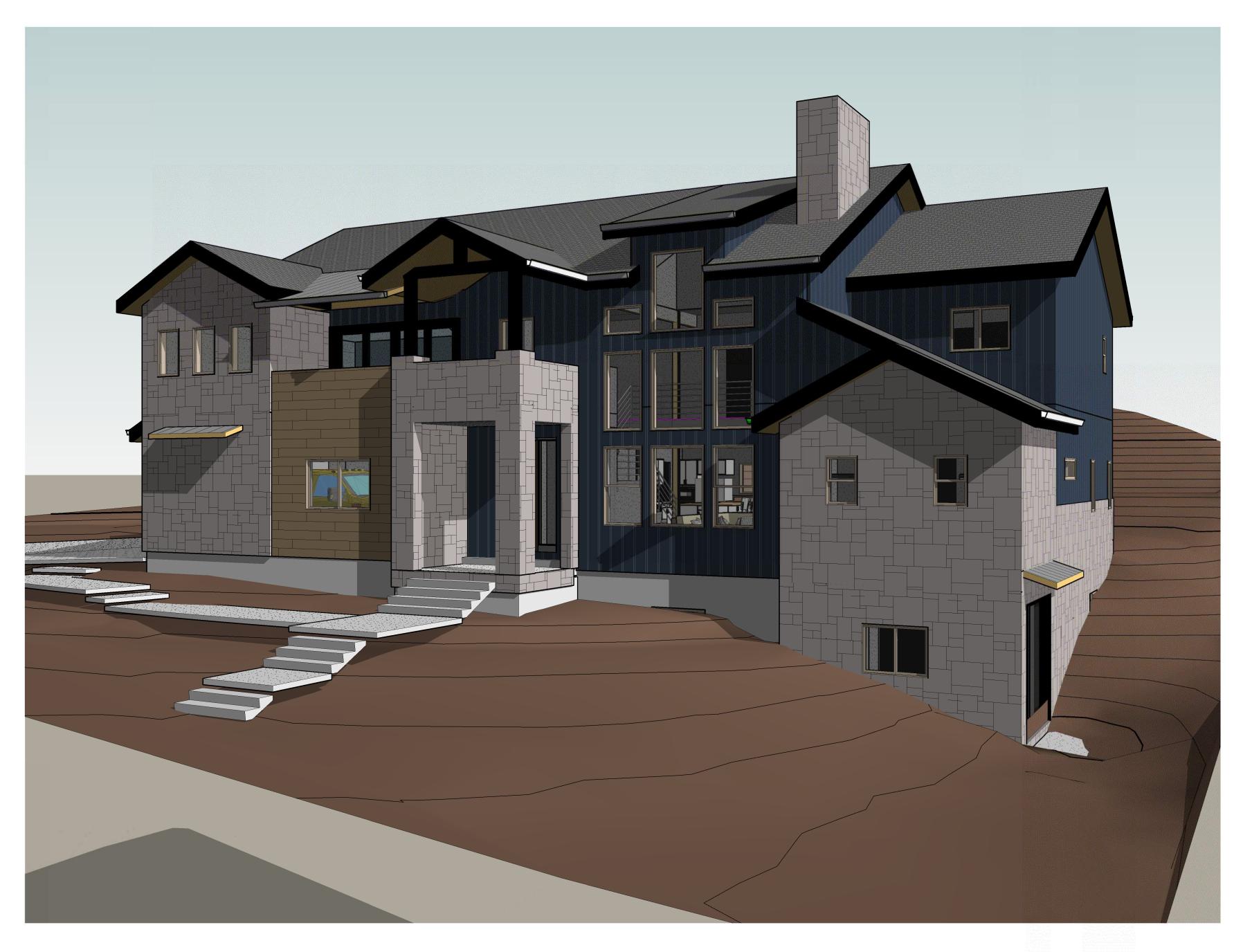
RESIDENCE FOR JUSTIN AND AIMEE NAYLOR 3441 Hidden Meadow Circle Morgan, UT 84050



SHEET INDEX SHEET INDEX GENERAL ARCHITECTURAL COVER SHEET GENERAL NOTES, SYMBOLS, ABBREVIATIONS BASEMENT FLOOR PLAN PRESENTATION PLANS FIRST FLOOR PLAN SECOND FLOOR PLAN **ROOF PLAN EXTERIOR ELEVATIONS** SITE PLAN **EXTERIOR ELEVATIONS** INTERIOR ELEVATIONS **BUILDING AND STAIR SECTIONS** GENERAL STRUCTURAL NOTES WALL SECTIONS FOOTING AND FOUNDATION PLAN ARCHITECTURAL DETAILS 1ST FLOOR FRAMING PLAN 2ND FLOOR FRAMING PLAN SCHEDULES ROOF FRAMING PLAN BASEMENT SHEAR WALL PLAN FIRST FLOOR SHEAR WALL PLAN BASEMENT ELECTRICAL PLAN AND NOTES SECOND FLOOR SHEAR WALL PLAN 1ST FLOOR ELECTRICAL PLAN SHEAR WALL ELEVATION 2ND FLOOR ELECTRICAL PLAN TYPICAL FOOTING AND FOUNDATION DETAILS FOUNDATION AND SLAB DETAILS TYPICAL WOOD DETAILS TYPICAL WOOD FRAMING DETAILS FLOOR DETAILS FLOOR DETAILS **ROOF DETAILS ROOF DETAILS**

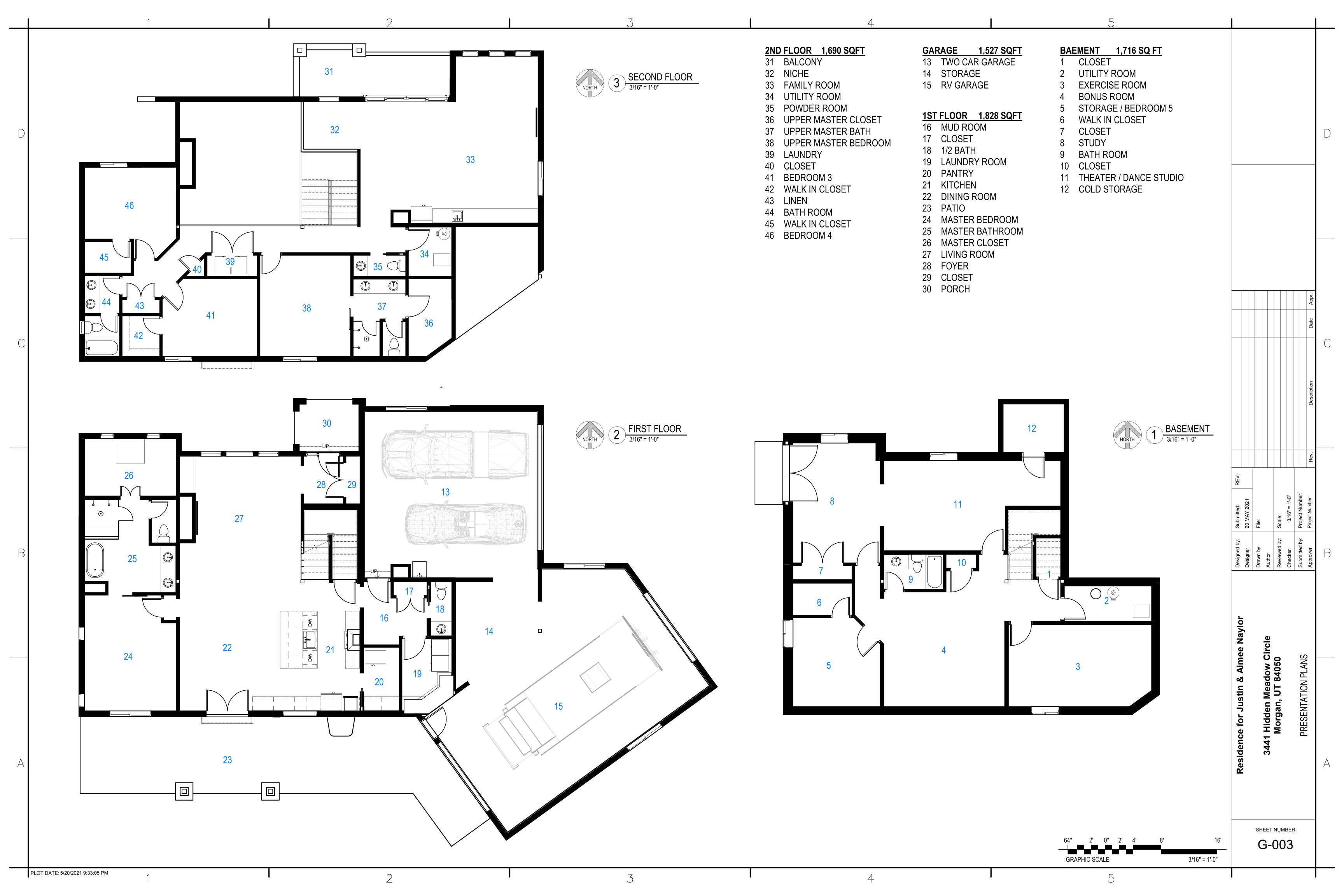
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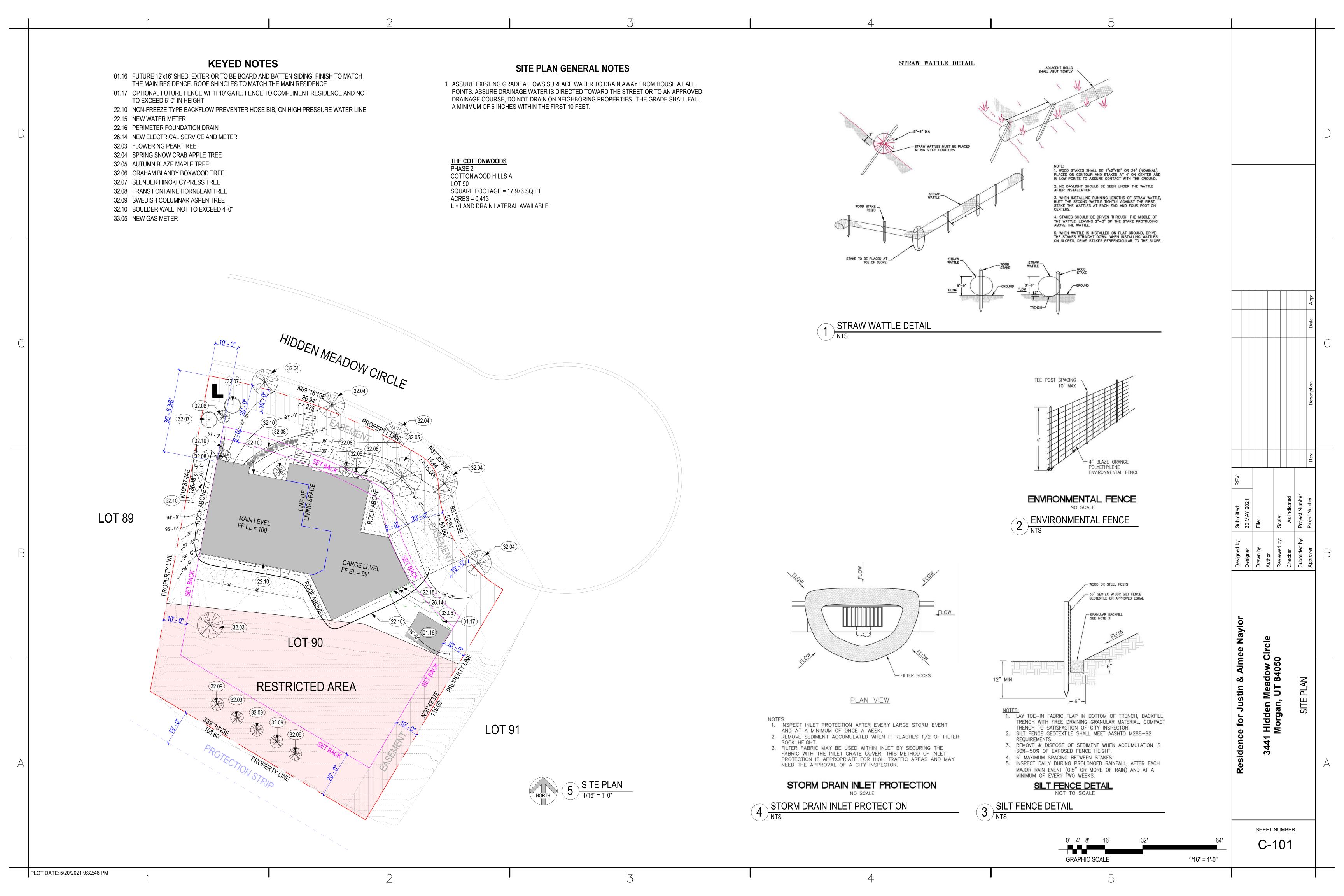
SHEET NUMBER KEY

CONC. AND FOUNDATION SCHEDULES

WOOD SCHEDULES

\rightarrow	1	1	2	1		3		4	5			_
		Λ	RRRE\/IAT	IONS/ACRONYMS								
	· -				s a==*		STANDARD S		GENERAL NOTES			
		anchor bolt air conditioning	FD FDN	floor drain foundation	MTL MULL	metal mullion	ROOM DESIGNATION	ROOM CODE Name	1. ALL WORK SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (2018 EDITION) AND ALL LOCAL CODES, INCLUDING ANY AND ALL COVENANTS,			
		above americans with disabilities act	FE FEC	fire extinguisher fire extinguisher cabinet	N NIC	north not in contract		150 Room Number	RULES AND REGULATIONS ADOPTED COTTONWOOD HILLS AND MORGAN COUNTY.			
	ADD'L	additional	FGL	fiberglass	No.	number	DOOR DESIGNATION	(101A)	2. COORDINATION OF WORK: THE GENERAL CONTRACTOR SHALL COMPARE			
D		above finished floor alternate	FHS FIN	fire hose station finish(ed)	NOM NTS	nominal not to scale			ARCHITECTURAL SPECIFICATIONS AND DRAWINGS WITH MECHANICAL AND ELECTRICAL SPECIFICATIONS AND DRAWINGS. IF THERE ARE ANY)
		aluminum anodized	FIN. FLR FP	finished floor elevation fireplace	O.C. OD	on center outside diameter	WINDOW DESIGNATION	A	DISCREPANCIES BETWEEN THEM, HE SHALL REPORT THE SAME TO THE ARCHITECT IN WRITING AND OBTAIN FROM THE ARCHITECT WRITTEN			
	ANSI	american national standards institute	FRT	fire-retardant treated	OH	overhead			INSTRUCTIONS FOR NECESSARY CHANGES.			
		approved approximate	FS FT	footing step feet	OPG OPP	opening opposite	ELEVATION, (VIEW)	2 A1.1 4	3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE DRAWINGS AND DIMENSIONS AND CONDITIONS AT THE SITE.			
	ARCH	architect(ural) asphalt	FTG GA	footing	OPT PBD	optimum particle board	ELEVATION (DATIUS)	3 /	4. ALL MATERIALS SHALL BE NEW (U.N.O.) AND BOTH MATERIALS AND			
	AUTO	automatic	GALV	gage, guage galvanized	PCB	polychlorinated biphenyls	ELEVATION, (DATUM)		WORKMANSHIP SHALL BE OF BEST QUALITY.			
		board building	GB GD	grab bar grade(ing)	PL PNL	plate panel	NORTH ARROW	NODTL	5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY, SECURITY AND PROTECTION IN AND AROUND THE JOB SITE AND ADJACENT PROPERTIES (IF			
	BLK	block bottom of	GF GI	government furnished government installed	PSI PSIG	pounds per square inch	NUKIT AKKUW	NORTH V	APPLICABLE).			
	BRG	bearing	GL	glass	PT	pounds per square inch gauge pressure treated or post tension	DETAIL	1 SIM	6. ALL DETAILS AND NOTES ON DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSE WHERE UNLESS NOTED OR			
		basement between	GLB GYP. BD.	glue laminated timber beam gypsum wall board	PTD PTN	painted partition	DETAIL	A101	SHOWN OTHERWISE. CONSTRUCTION NOT SPECIFICALLY SHOWN, SHALL BE ACCOMPLISHED AS PER MINIMUM REQUIREMENTS OF THE INTERNATIONAL			
	CF	cubic foot	HAS	headed anchor stud	QTY	quantity	DRAWING TITLE	View Name	BUILDING CODE (2018 EDITION).			
		center of gravity cast iron	HB HC	hose bib hollow core	R RAD	riser(s), radius radius	DISTRIBUTION TO THE PROPERTY OF THE PROPERTY O	View Name 1/8" = 1'-0"	7. THE CONTRACTOR SHALL REVIEW, APPROVE AND VERIFY ALL SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS TO		Appr.	
		construction joint center line or column line	HCAP HD	handicap holdown	REA REINF'D	Rand Eardley & Associates reinforced	REVISION DESIGNATION	1	ASSURE THEY COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND SIMILAR			
	CLG	ceiling	HDR	header	REQ'D	required		<u>/ 1 \</u>	SUBMITTALS SUBMITTED TO THE ARCHITECT WHICH HAVE NOT BEEN REVIEWED, APPROVED, VERIFIED, STAMPED AND SIGNED BY THE GENERAL		Date	
C		clear(ance), category of logistical responsibility concrete masonry unit	HDWR HM	hardware hollow metal	REV RM	revised room	GRID HEAD	0	CONTRACTOR WILL BE RETURNED TO THE GENERAL CONTRACTOR WITHOUT ACTION BY THE ARCHITECT. THE ARCHITECT WILL REVIEW THE SHOP			С
	COL	column	HOR HR	horizontal hour	RO s	rough opening south	-		DRAWINGS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT. THIS REVIEW BY THE ARCHITECT SHALL NOT BE CONSTRUED AS APPROVAL.			
	CONST	construction	HRDWD	hardwood	S.S.	stainless steel			THIS REVIEW BY THE ARCHITECT SHALL NOT BE CONSTRUED AS APPROVAL. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS AND OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA,			
		continuous, continue carpet	HT HTG	height heating	SCHED SECT	schedule(ed) section			SAMPLES OR SIMILAR SUBMITTALS BY THE ARCHITECT'S REVIEW.		ription	
	CRS	course(s)	HVAC	heating/ventilating/air cond.	SF	square feet		/DEC			Descr	
		casement cubic yard	HWH ID	hot water heater inside diameter	SHT SIM	sheet similar	LINE TY	PES .				
		door elevation detail	INCL INSUL	include(d), (ing) insulate(d), (ion)	SPEC SQ	specifications square	MATCH					
	DF	drinking fountain	INT	interior	STD	standard	DDADEDTY					
		douglas fir diameter	JSN JT	joint schedule number joint	STG STRUC	storage structure(al)	PROPERTY				Rev.	
		dimension division	LAM LAV	laminate(d) lavatory	SW T	shear wall tread(s)	GRID —			.: 		
	DL	dead load	LF	linear feet	T.O.	top of				<u> </u>)	
		department of defense dispenser	LH LL	left hand live load	TC TYP	top of curb typical	HIDDEN			ted: / 2021	= 1'-0" Numbe lumber	
	DR	door deformed weldable bar	LP I TI	low pressure	UL	underwriters laboratories				Submitt 20 MAY :ile: cale:	12" : Project	
		drawing	LTL LVL	lintel laminated veneer lumber	UNO VB	unless noted otherwise vapor barrier	REMOVAL			N IL 0	×	
R		east each	LW MAS	lightweight masonry	VCT VERT	vinyl composition tile vertical				Jined by Liby:	nitted by	\exists
	EJ	expansion joint	MAT'L	material(s)	W	west	OVERHEAD			Desiç RME Drawı Revie	Subm	,
		electrical elevation	MAX MB	maximum machine bolt	W/ W/O	with without						
	EMT	electrical metallic tubing edge nail	MBR MC	member medicine cabinet	WC WD	water closet						
	EQ	equal	MECH	mechanic(al)	WF	wood wide flange						
		equipment estimate	MED MFR	medium manufacture(r)	WP WR	water proof(ing) water repellant				lor	ONS	!
	EX	existing	MIN	minimum	WS	wall step	ARCHITECTU	JRAL MATERIALS		Nay le	/IATI(
	EXT	expansion extinguisher	MISC MLB	miscellaneous microllam beam	WSCT WWF	wainscot welded wire fabric	STEEL STUD			nee l Circ	REV	
		concrete 28 day strength masonry strength	MMB MO	membrane masonry opening						Aim)w (ABB	
		200) 55	9	oponing			GYPSUM BOARD CEILING / WALL			7 & / 9adc T 84	JLS,	
							LAY-IN ACOUSTICAL CEILING			Justir en Me an, Ul	SYMBC	
							CONCRETE			e for Hidde	IOTES,	
							CARPET / TILE (SECTION)			sidenc 3441	ERAL N	A
A							PLYWOOD (SECTION)			Res	GENE	1
							MASONRY WALL			SHEET NUMB	BER	
							TEMPORARY WALL			G-002		
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1'	LOT DATE. 0/20/2021 0.00.02 1 WI	1	2	I		3	I	4	5	1	I	!





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	GENERAL STRUCTURAL NOTES				
	 1.0 GENERAL NOTES, INSTRUCTIONS, AND SUBMITTALS 1.1 GENERAL INSTRUCTIONS a. Construction, material testing, workmanship, inspections etc. shall conform to the to the b. Construction of the recognizer of the International Building Code (IBC). American Society 	 3.0 SOIL DESIGN PARAMETERS 3.1. NO SOILS REPORT No soils report available. Contractor shall retain GEOTECHNICAL Engineer to observe the excavations and verify the assumed parameters. The authority have jurisdiction over the project may waive the requirement. Corrective measure shall be taken to obtain the assume soil design 	 6.0 REINFORCING STEEL 6.1 MATERIALS a. Steel Reinforcing shall conform to ASTM 615 or ASTM A706 (weldable) and shall be grade 60 (f_y= 60,000 psi) minimum unless noted otherwise. 6.2 CONSTRUCTION a. Minimum cover requirements of steel deformed bar reinforcing shall comply with ACI 318 Table 	8.0 WOOD 8.1 CODES AND STANDARDS a. The ANSI/ALF&PA "National Design Specification", (NDS). b. The grading requirements of the WWPA.	TO LINEER
	requirements of the governing edition of the International Building Code (IBC), American Society for Civil Engineers (ASCE7)(ASCE7), OSHA STANDARD and other standards as required by the Authority having jurisdiction (AHJ) or as required by owner. b. Contractor shall be become familiar with the contract documents and shall ensure subcontractors understand the portion of the work pertaining to their area OF WORK. Any changes to the construction documents shall be submitted in writing to the EOR/Arch prior to implementation. Changes not approved by the EOR will be redone, FIXED or corrected at the contractor's	parameters. Min frost cover 36 inches below existing grade. 4.0 EARTHWORK 4.1 SOIL PERPETRATION	20.6.1.3.2 – Specified concrete cover for cast-in-place non-prestressed concrete. Concrete Member Reinforcement Specified Exposure Size Cover (in) Cast against and permanently ALL All 3 in contact with Ground	c. Preservative Treatment requirements of the AWPA. 8.2 MATERIALS (All materials shall be clearly marked) a. Structural lumber species and grade shall be as follows: 1. Joists, beams or headers:'DF/L #2' or better. 2. Posts and columns:'DF/L #1' or better.	No. 15 OF
	 c. Contractor shall be responsible to verify site dimensions and conditions. Discrepancies between site conditions and the Contract Documents shall be brought to the attention of the Arch/EOR prior to proceeding with work in the affected area. Existing conditions have been verified to the best of the EOR's ability, however if actual conditions differ significantly notify EOR before proceeding with work. d. The drawing and specifications show the finished structure. The contractors shall be responsible 	 a. Prior to construction, the contractor shall verify the soil conditions are adequate for a 1,500 psf allowable soil bearing pressure. Poor soil beneath footings and slabs shall be removed and replaced with structural fill as required. Where GEOTECHNICAL report is available follow directions in report. b. Remove all existing structure remnants, foundation, slabs, asphalt fencing, concrete, trees roots etc. as required. The pad/footing area shall be stripped of vegetation, topsoil and other deleterious material. All existing fill soils and remaining loose natural soils shall be excavated and 	Exposed to Weather or in Contact with Ground All #6-#18 bars 2 Contact with Ground #5 and smaller 1-1/2 Not Exposed to Weather or in Slab, Joists #14-#18 bars 1-1/2 Contact with Ground & Walls #11 and smaller 3/4	 Studs:'DF/L #2' or better. Sill plates:'DF/L #2' or better, treated. Manufactured joists: Truss-Joist or approved equal. Structural Glued-Laminated Timber: 24F-V4 for simple spans and 24F-V8 for continuous or cantilevered beams. Engineered Lumber: Structural Laminated-Veneer-Lumber (LVL): conform to the following minimum design 	
	for designing and providing mean and methods of construction including, but not limited to, shoring forming, temporary bracing etc unless noted otherwise (UNO) Adequate shoring and bracing shall be provided until the final structural support systems are in place. e. Contractor shall keep record of modifications made to the original contract documents and report them to the Arch/EOR to be added to the as-built drawings f. Contractor shall be responsible to verify MEP component size and weight prior to fabrication of the structural supporting systems. Size and locations that do not match drawings may require additional framing members and supports.	removed to expose suitable natural soils. c. Prepare the site work area per the GEOTECHNICAL report. Or, where no report is available, proof entire pad with standard compaction equipment to check for the presence of unsuitable fills, soft spongy areas, and other undesirable materials. Excavate and remove areas with undesirable material and replace with compacted structural fill.	Beams, Ties, Primary Reinforcement Column, stirrups, ties, spirals 1-1/2 Pedestals and hoops b. Lap splices of reinforcement shall conform to the "TYPICAL REBAR DEVELOPMENT/LAP LENGTH SCHEDULE" unless note otherwise 125% of the spliced bars yield strength.	values: Fb =2,600 psi. (Joist/Beam orientation) Fv =285 psi. E =1,900,000 psi. 2. Structural Laminated-Strand-Lumber (LSL): conform to the following minimum design values: Fb =2,325 psi. (Joist/Beam orientation)	
	g. In the event that certain features of the construction are not fully shown on the drawing or call for in the General Notes or specifications, their construction shall be of the same character and quality as for similar conditions that are specified elsewhere in the construction documents. h In the event that conflicting notes or details are encountered the more stringent or restrictive items shall apply unless a written clarification of details is provided by the engineer of record for the project. Typical details may be used as long as reasonably similar to the encountered situation. I. The Architect/Engineer shall be contacted in the event that any portion of the new construction (as	 d. Compacted structural fill shall be well graded non-expansive granular material with a maximum size less than 4 inches and with not more than 35 percent passing a No. 200 sieve. It shall be compacted to at least 95 percent of the maximum dry density as determined by ATM D 1557 for fill beneath footings and 90 percent for fill beneath floor slabs. All fill shall be tested. Compacted structural fill shall be place in 8 inch uncomplicated lifts maximum. e. Floor slab thickness shall be as noted on the plans. It shall be underlain the a minimum of 6 	 d. All reinforcing shall be bent cold. Do not heat reinforcing steel. Rebar may be bent one time only. Do not re-bend bars. e. All reinforcing shall be securely held in place while placing concrete. f. All reinforcing shall be marked such that identification can be made during final inspection. g. Use of epoxy coated reinforcing requires additional lap length. Epoxy coated reinforcing should only be used when specifically noted, unless EOR in notified prior. 	Fv = 310 psi. E = 1,550,000 psi. 3. Structural Parallel-Strand-Lumber (PSL): conform to the following minimum design values: Fb = 2,900 psi. (Joist/Beam orientation) Fv = 290 psi. E = 2,000,000 psi. e. Wood structural panels shall be Exposure 1 Grade or better APA rated sheathing with exterior glue	
	shown on these construction documents) can not be accomplished due to conflicts with other portions of the construction documents. The contractor is responsible to verify dimensions and onsire conditions prior to start of work of fabrication of building components. j. The plans and details have been prepared to visually represent the actual condition UNO. However, DO NOT scale the drawings for dimensional information. Refer to Architectural drawings for dimensions UNO. Dimensions, where shown, on structural drawings are to stud line, rough concrete, or concrete block surface unless shown or called out otherwise.	inches of free draining gravel, or as directed in the approved GEOTECHNICAL Report. The granular layer shall have a maximum size of less than 2 inch with not more than 5 percent passing a #200 sieve and shall be compacted to at least 90 percent of the maximum dry density as determine by ASTM D 1557. 5.0 CONCRETE	 7.1 POST INSTALLED CONCRETE ANCHOR BOLTS a. Anchor design for structural and nonstructural components shall be in accordance with Chapter 17 of ACI 318-19. b. Concrete anchors shall be approved for use in cracked concrete and have an approved ICC report UNO. 	and conform to Standard PS 1-83, or PS 2-92. f. Wood connectors shall be Simpson Strong-Tie. 8.3 CONSTRUCTION a. See plans for roof and floor joists sizes. Joists shall be laterally supported at bearing points by solid blocking or with metal hangers.	
	 k. Construction, material testing, workmanship, inspections etc. shall conform with the requirements of the governing code in sections 1.1. Contractor shall coordinate inspections, testing, and observations as the work proceeds. I. The contractor and owner shall be responsible for maintaining the design loads listed herein at all times. This includes during and after construction. The contractor shall use "good judgement" in placing building materials around the site as to not overload structural members. 	 5.1 CONCRETE STRENGTH AND DESIGN PARAMETERS a. Concrete construction shall be performed in accordance with ACI 318 and other approved standards. b. The minimum 28 day compressive strength for each type of item on this project is shown in the table below. Table also includes Water/Cement Ratio (W/C), Air Content, Max Aggregate size and Exposure class (see ACI 318 19.3.2.1). Exposure class 	 c. Post installed anchors shall be installed by qualified personnel and in accordance with the manufacturers printed installation instructions (MPII). Existing reinforcing bars shall not be damaged. Drilled holes striking rebar shall immediately be abandoned and patched. The hole shall be relocated or where not feasible contact EOR. Where anchors are installed in pre or post tensioned slabs the reinforcing strands shall be located via X-ray or similar scan. Do not install anchor within 1-1/2" inches pre-stressing strand. d. Subcontractor shall supply all equipment required for anchor bolt installation according to MPII. This includes but is not limited to drills, setting tools, clean out brushes, blow-out 	 b. Erect manufactured joists in accordance with the fabricator's commendations. Joists shall be able support the loads published in their design catalogs. c. Provide bridging at 8'-0" o.c. maximum spacing for dimensional lumber and LVL joists. Provide bridging in all other manufactured joists as per the manufacturer's recommendations. d. Fill all nail holes, round and triangular, in wood connectors (framing anchors, joist hangers, purlin anchors, etc.) with nails as specified by the manufacturer, UNO. e. Bolts and all-threads in wood connectors shall be machine rated bolts, A307 or better. f. Install washers under all bolt nuts. Make bolt holes only 1/32 to 1/16 inch larger than bolts. Tighten 	Date Appr.
C	1.2 STRUCTURAL OBSERVATION a. Where required STRUCTURAL observations shall be performed by a licensed structural engineer. observation reports shall be submitted to the Architect and persons having Jurisdiction over the project. Observations performed by Spectrum Engineers representatives shall not take the place of special Inspections, or building inspections as required by code. Structural observations are intended to provide an opportunity to clarify misunderstandings and verify overall understanding of the design intent. It is not approval or certification of construction. Refer to the Structural Observations Schedule for items and sequencing of visits.	refer to the following: F- Freeze & Thaw, S- Sulfate, C- Chloride COMPONENT 28 DAY MAX AIR MAX EXPOSURE CLASS PORTLAND STRENGTH W/C CONT. AGG F S C CEMENT (psi) (%) (%) SZ (in) TYPE Footing 4500 0.5 5 1 F2 S0 C1 II,V (Freezing) Footing 3000 0.5 NA 1 F0 S0 C1 II,V	 bulbs, oil free compressed air, vacuums, wrenches etc. as required for installation per manufacturer. e. Anchors installed in exterior applications or exposed to the moisture shall be hot-dip galvanized per ASTM A153 or stainless steel of type 304/316 per ASTM A193,A320 and F593. f. Nuts, washers, and other hardware used with an all-threaded bar adhesive anchor system or with a mechanical (expansion or screw) anchor shall have a material or an alloy 	nuts snugly, but DO NOT crush the wood. DO NOT countersink bolts, UNO. g. Specified nails are common and shall correspond to the following diameters and lengths: (16d -0.162"Ø & 3-1/2" long; 10d-0.148"Ø & 3" long; 8d-0.131"Ø & 2-1/2" long) h. Minimum nailing of members: Conform to IBC, Table 2304.9.1, UNO. i. Nail built-up beams of 2x_ members 12" deep or less together with 16d nails at 12" o.c., staggered. Add (2) 16d common nails at supports. Bolt 2x_ members deeper than 12" together with 1/2" bolts at 16" o.c. staggered. Add (2) bolts at supports.	C
	 SUBMITTALS a. Submittals shall be made for items designed by others and shop drawings. Spectrum Engineers shall review for overall compliance and understanding of the design intent. The contractor retains responsibility for verifying member sizes, quantities, dimensions, elevations etc. on all submittals related to contract documents. Approved shop drawing and materials must be on site prior to commencement of work. 	Footing 3000 0.5 NA 1 F0 S0 C1 II,V Foundation Wall 4500 0.5 5 1 F2 S0 C1 II,V (Freezing) Foundation Wall 3000 0.5 NA 1 F0 S0 C1 II,V Slab-on-Grade 3000 0.5 NA 1 F0 S0 C0 II,V Over Steel Deck 4000 0.45 6 3/4 F1 S0 C0 II Walls 4000 0.45 3 3/4 F1 S0 C1 II c. Portland Cement (ASTM)	designation that is compatible with the anchor rod/alloy. Galvanized assemblies shall be hot-dip galvanized in accordance with ASTM A153 Class C. Electroplate galvanizing is not acceptable. Dissimilar metal assemblies shall be separated by nylon, EPDM, or other approved non-metallic washers. g. Concrete at time of adhesive anchor installation shall have a minimum age of 21 days. For installation of adhesive anchors in concrete having an age less than 21 days, tests shall be conducted to verify the performance of the product in accordance with ACI 355.4 h. Installation of adhesive anchors in orientations from horizontal to vertical to support	J. Nail built up column of 2x_members as follows" j. (2) 2x4 laminations: 16d nails @ 6" O.C. staggered b. (2) 2x6 laminations: (2) rows 16d nails @ 6" O.C. staggered c. (3) 2x4 laminations: sheathing connected on (1) side- 16d nails @ 6" O.C. staggered each lamination d. (3) 2x4 laminations: No sheathing - 30d Common @ 6" O.C. staggered e. (3) 2x6 laminations: sheathing connected on (1) side- (2) rows of 16d nails @ 6" O.C.	Description
	 Concrete material and mix designs Reinforcing Steel Wood truss's and calculations (Pre-fabricated) Wood joists and Beam (manufactured) 	Type I- General Purpose Type II- Moderate Sulfate Resistance Type III- High early strength Type IV- Slow Reacting Type V- High Sulfate Resistance d. Fly Ash - (ASTM Class C or F) max content to weight ratio is 25 percent e. Concrete Density	sustained tension loads shall be performed by personnel certified by the ACI Adhesive Anchor Installer Certification program or equivalent. These anchors are designated with a (CERT) after the anchor callout. Mechanical anchors shall be tested and assessed in accordance with the most recent edition of ACI 355.2 Qualification of Post Installed Mechanical Anchors in Concrete and Commentary. Acceptable mechanical anchors are as follows:	staggered each lamination f. (3) 2x6 laminations: No sheathing - (2) rows of 30d Common @ 6" O.C. staggered k. All drilled holes and cut ends of preservative-treated and fire-retardant-treated wood shall be field treated with a preservative per AWPA Standards. l. Fasteners (including nuts and washers) in preservative-treated and fire-retardant-treated wood shall conform to IBC Section 2304.10.5, UNO.	
	 2.0 BASIS OF DESIGN 2.1 GRAVITY LOADING The governing code for vertical load resisting elements shall be the 2018 IBC & ASEC7-16 "Minimum Design Loads and Associated Criteria for Buildings and other Structures" 	1. Normal weight concrete 150 pounds per cubic foot 2. Lightweight concrete shall be 110 pounds per cubic foot f. Aggregate 1. Normal weight in accordance with ASTM C33. 2. lightweight in accordance with ASTM C330. g. Admixtures 1. Super plasticizers and water reducers are permitted.	Screw anchor: 1. Kwik HUS-EZ (ESR 3027) by Hilti Corporation 2. Screw-Bolt + (ESR 3889) by DeWalt-Powers 3. Titen HD (ESR-1056) by Simpson Strong Tie Inc. 4. Alternate screw anchors may be used if an ESR-ICC approval report for use in Cracked concrete is submitted to the EOR prior to use.	9.0 WOOD ROOF TRUSSES (PRE-FABRICATED) 9.1. PRODUCT: a. Design and fabricate roof trusses in accordance with the requirements of the Truss Plate Institute (TPI). Use galvanized metal gusset plates designed and manufactured per approval of "The Research Committee for the ICBO".	REV:
	2. Building Risk Category II 3. Dead Loads Roof 15 psf Floor 12 psf 4. Floor Live Load: Residential 40 psf Garage attic storage 60 psf	Calcium chloride admixtures are not permitted 3. Water shall be clean potable and free of refuse. h. Slump 1. Maximum slump prior to addition of water reducers or plasticizer shall be 4". Submittal shall include final slump to used on submittal package. j. Special Inspection and Testing	 Kwik Bolt TZ (ESR-1917) by Hilti Corporation Powers-Stud + (ESR 2818) by DeWalt-Powers Strong Bolt 2 (ESR-3037) by Simpson Strong Tie Inc. Alternate wedge anchors may be used if an ESR-ICC approval report for use in Cracked concrete is submitted to the EOR prior to use. 	 9.2 DESIGN: a. The truss manufacturer is responsible for the design and fabrication of the truss system and it's bracing requirements. b. Design trusses to support the following loads. Snow load (Top chord) 38.5 PSF Dead load (Top chord) 10 PSF 	Submitted: 20 MAY 2021 File: 1" = 1'-0" Project Number Project Number
В	5. Roof Live Load:	1. All concrete placed shall be subject to special inspections and testing per IBC chapter 17, see special inspection section for additional information. 5.2 CONSTRUCTION a. Formwork and shoring shall be at the discretion of the contractor. Contractor shall remove all forms and shoring after adequate strength has been obtained. b. Do not allow penetration through any structural element unless specifically instructed to do so.	Adhesive anchor systems shall be tested and assessed in accordance with the most recent edition of ACI 355.4 Qualification of Post-Installed Adhesive Anchors in Concrete (355.4) and Commentary. Acceptable adhesive anchors are as follows: Adhesive anchors: 1. HIT HY 200 (ESR-3187) by Hilti Corporation 2. Pure 110+ (ESR 3298) by DeWalt-Powers 3. SET-XP (ESR-2508) by Simpson Strong Tie Inc.	Live load (Bottom chord) 10 PSF Dead load (Bottom chord) 10 PSF c. Truss design shall conform to the requirements of the current edition of IBC Section 1608 and ASCE 7 Section. These requirements shall include, but are not limited to, the following:	Designed by: Designer Drawn by: Author Reviewed by: Checker Submitted by:
	d. Thermal Factor, Ct: 2.2 LATERAL LOADING 1. The governing code for lateral load resisting elements shall be the 2018 IBC & ASEC7-16 "Minimum Design Loads and Associated Criteria for Buildings and other Structures" 2. Seismic Design (EQ) Seismic Design Category Spectral Response Accelerations (%g)	 c. Mechanical vibrate concrete during placement. d. Before placing concrete, See Electrical, Meccanical, piping and architectural drawings for additional penetrations, embeds, sleeves, floor drains, conduit, block-outs, etc. That are not shown on the structural drawings. e. Embedded items: Bolts, Rebar, Welded wire fabric, and inserts shall be positively held in place before concrete placement. The contractor hall verif the loaction of equipment anchor bolts with the approvied vendor submitted drawings. Slab reinforcement, 	4. Alternate epoxies may be used if an ESR-ICC approval report for use in Cracked concrete is submitted to the EOR prior to use. 7.2 FIELD QUALITY CONTROL a. The International Building Code (IBC 2018) requires special inspection of all post-installed anchors. ACI 318-19 sections 26.13.1.5 and 26.13.1.6 require that all inspections of mechanical and adhesive anchors, respectively, are performed by a certified field inspector	1. Partial loading. 2. Unbalanced snow loads. (See Schedule) 3. Drifts on lower roofs and roof projections. (See Plan) 4. Sliding snow. 5. Ice dams and Icicles along eaves (double eave loads). d Consider the effects of eccentric loading in the design of heel joints.	
	a. $S_s=0.749$ $S_1=0.28$ Spectral Response Design Spectral Response Soil site class D	including wire fabrice, shalle be place on chairs or spacing blocks to maitiain adequate rebar cover. f. Expansion joint material shall confrom to ASTM D944 for bituminous impregnated fiberboard. 5.3 FOOTINGS a. Center footing below wall or column, unless specifically instructed otherwise. b. Footings shall be place below the effects of frost, UNO (exterior only)	specifically approved for that purpose by the Licensed Design Professional and the building official. Certification is established through an independent assessment such as the ACI Post-Installed Concrete Anchor Installation Inspector Program or similar program with equivalent requirements. Adhesive anchors installed in horizontal or upwardly inclined orientations to resist sustained tension loads shall be continuously inspected during installation by a certified inspector.	 e. No stress increase for plate connectors is allowed. f. Submit complete calculations and shop drawings indicating member forces, stresses, lumber grades, dimensions, metal truss plate sizes and locations and bracing requirements for review prior to fabrication. 9.3. FABRICATION: a. Fabricate in jigs with accurately cut lumber. Provide full bearing at joints. b. Use kiln dried lumber. 	ee Naylor ircle
	a. Wood Framed Shear Wall b. R=6.5	c. Footings shall bear on properly prepared sub-surface, See Basis of Design. d. Stagger footing cold joints from wall cold joints 48" min. 5.4 SLAB-ON-GRADE a. Interior slab shall be 4" thick min. with 4" of free draining gravel below UNO. b. Slab reinforcement shall be #4 bars at 24" O.C. each directions UNO. 5.5 WALL a. Minimum wall reinforcing shall be as follow, (unless noted otherwise):	 7.3 CAST IN-PLACE ANCHOR BOLTS a. Anchor bolts shall have ASTM A563 heavy hex nut and hardened washers 1. Typical anchor bolts shall be ASTM F1554 Grade 36 Headed Bolts. 2. High strength application are noted on plan and shall use ASTM F1554 Grade 105 Headed Bolts b. Contractor shall furnish templates, mock ups, etc as required prior to placing anchors to ensure proper installation and clearances. 	 c. Position members as shown on the drawings, if provided. Otherwise follow the approved shop drawings. d. Press plates into members to obtain full penetration. DO NOT crush the wood. e. Balance plates on the joint as the stresses require. Provide a minimum bite of 2.5" length on each member. The minimum size of any connector shall be 12.5 square inches. f. Dimension connectors on the shop drawings for each joint. 	tin & Aim Meadow C UT 84050 JCTURAL NC
	i. W _{eff} = varies j. Δ:0.02h k. h=varies l. Design Story Drift k. h=varies l. Design Procedure= ELF Wind Design Wind Design	Wall Horizontal Vertical Thickness Reinforcing Reinforcing (in) 8 #5 @ 12" o.c. #4 @ 16" o.c. o.c.=on center	c. Minimum embedment of all anchors shall be 6". Refer to individual details for connections that require greater embedment lengths.	 9.4. ERECTION: a. Brace roof trusses in accordance with the "Lateral Bracing Requirements" of the TPI. b. Nail multiple trusses together with 16d at 12" o.c. on all chord and web members, minimum. See fabricators shop drawings for additional nailing requirements. 	ce for Jus Morgan, VERAL STRU
A	Wind Parameters a. V _{ULT} =103 mph b. V _{ASD} = 79.8 mph c. Exposure=C d. GC _{pi} =0.18 e. K _{zt} =1.0 Ultimate Design Wind Speed Allowable Design Wind Speed Wind Exposure Category Internal Pressure Coefficient Topographic Factor				Residence 3441
	Components and Cladding Design Pressure (Ultimate): All wind values given in psf (psf= pound per square foot) Location Tributary Area (ft²) <10 50 100 500 Walls: Within (a) of building corner (zone 5) 33.6 28.3 26.1 20.8 All other areas (zone 4) 27.2 24.6 23.4 20.8 Roof: Within (a) of building corner (zone 3) 66.4 42.1 42.1 29.3				
	Within (a) of building corner (2016 3) 60.4 42.1 42.1 29.3 Within (a) of building edge (zone 2) 56.9 40.5 33.4 29.3 All other areas (zone 1) 35.7 30.7 26.9 20.8 a =5.0 ft				SHEET NUMBER S-001
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