Variance Request

Property: 8230 S 1330 E, Sandy City, Utah 84093

Zoning district: R-1-8

A. Request:

Reduction of required setbacks due to unique property encumbrances and physical constraints

B. Development code section:

The requirement we seek to vary is found in:

Sandy City Development Code, Section 21-20-20, R-1-8 Zone – Corner Lot Setbacks.

Front setback (Side A): 30 feet

Secondary front setback (Side B): 20 feet

C. Purpose of the variance:

The purpose of this variance is to allow reasonable remodel/addition of the property while accommodating irregular lot shape, overlapping utility easements for the property and neighborhood, and a historic retention pond abandoned in the ground, which together limit the buildable area. The variance will enable the remodel/addition of a single-family home consistent with other properties in the neighborhood, while preserving public safety, easement access, and overall neighborhood character.

Reduce Side A (primary frontage) from 30 feet to 26 feet

Reduce Side B (secondary frontage) from 20 feet to 17 feet

D. Findings of Fact

1. Hardship if variance is not granted:

Literal enforcement of the zoning ordinance would result in significant practical hardship. The property contains:

- An irregular lot shape, reducing buildable area compared to typical R-1-8 lots
- Multiple utility easements, not just including the property this is servicing the neighborhood, including natural gas lines, storm drains, electrical junctions for neighbor's house and city street light, and lowvoltage cable/internet boxes
- A historic water retention basin from (1976) in the rear (south-west) portion of the lot
- UDOT easements on the west and south sides of property.

These factors create physical limitations that make it extremely difficult to develop the property within the standard setbacks. This hardship is intrinsic to the property and not economic or self-imposed

2. How this property differs from others in the vicinity:

Unlike neighboring properties, this lot is encumbered by:

- Irregular lot dimensions, deviating from standard R-1-8 lots.
- Multiple overlapping utilities and UDOT easements
- An outdated water retention basin taking up usable side/rear yard space preventing use of rear setbacks of 15 feet.

No other property in the immediate area faces this combination of physical and legal constraints.

These conditions are not present on most nearby lots in the R-1-8 zone and are therefore special circumstances that justify a variance.

These combined factors are peculiar to this parcel and do not generally apply to other properties within the same subdivision or zoning district. The special circumstances directly cause the hardship and directly relate to the requested variance

3. Benefits other properties enjoy:

Neighboring R-1-8 homeowners can remodel or add onto their homes within the standard setbacks because their buildable envelopes are unobstructed by overlapping easements or underground infrastructure.

By contrast, this property's buildable area is confined to a narrow central footprint.

Without a variance, the property cannot be improved in a way comparable to others in the same neighborhood, leading to:

- Functional limitations for modern living layouts:
- Lower long-term property utility and value;
- Reduced ability to invest in improvements consistent with community standards.

Granting this variance restores equity and parity with similarly zoned lots while maintaining compliance with safety and design intent.

Other R-1-8 properties have remodel/add-on to the single-family homes within given setbacks without interference from utility easements that service the neighborhood or irregular lot configuration and outdated water retention basin. Without a variance, this property would be unable to utilize its buildable area to the same extent, placing it at a practical disadvantage. Granting the variance would provide the applicant with the same property rights and design flexibility enjoyed by neighboring homeowners.

4. Variance and general purposes of the development code:

Granting this variance does not deviate from the general purposes of the Sandy City Development Code:

- The property will still maintain adequate light, air, and open space.
- Safety standards and access to utilities are preserved.
- Neighborhood aesthetics and density remain consistent.
- Ensuring no impact on public rights-of-way.
- The proposed reductions (4 feet on Side A and 3 feet on Side B) are modest and proportionate to the property's constraints.

5. Conformance with zoning intent and fairness:

This variance aligns with the overall intent of the zoning laws by ensuring that corner lots remain functional and safe while allowing reasonable development. Granting this variance is fair because it addresses unique physical constraints specific to this lot, without impacting neighboring properties or public interest. The overall intent of Sandy City's zoning laws is to balance orderly development with fairness to property owners who face unusual site constraints. The requested variance honors that intent by allowing a reasonable and equitable use of the property without undermining the zoning ordinance's objectives. The request is modest only a 4-foot reduction on Side A and a 3-foot reduction on Side B and maintains the visual alignment of surrounding homes. Approving the variance ensures substantial justice by allowing the applicant the same development opportunities afforded to others in the same district.

E. Previous variances:

No previous variances have been requested or granted on this property to my knowledge

F. Additional details for the board:

- The proposed setback reductions are minimal and only sufficient to make reasonable changes possible.
- The lot layout preserves all easements and ensures proper access for utilities and emergency services.
- The variance request has been carefully reviewed to mitigate any potential impact on neighboring properties.
- Other lots within the neighborhood needed these similar requests and somehow they're successful.
- The request aligns with the intent of Utah Code §10-9a-702 and Sandy City Development Code 15-01-32, meeting all criteria required for variance approval
- The variance is requested solely to accommodate the physical shape and site constraints of the lot and is not based on any economic consideration.
- The reduced setbacks will not interfere with public utilities or easement access, as those easement areas remain unaltered and unbuilt.
- The proposed home will meet all remaining zoning requirements for height, coverage, and side/rear setbacks.
- Equity and Justice: The request upholds the principle of fairness inherent in Utah Code §10-9a-702(2), ensuring that zoning ordinances do not impose an unreasonable burden on uniquely constrained lots.

Dear Members of the Board of Adjustment,

I am writing to respectfully request a variance for the property located at 8230 S 1330 E Sandy City, Utah, 84093, an R-1-8 corner lot that presents unique physical challenges which make compliance with the zoning ordinance exceptionally difficult. We are requesting minor reductions to the standard corner-lot setbacks—specifically, from 30 feet to 26 feet on Side A and from 20 feet to 17 feet on Side B—to allow reasonable development while fully respecting all existing easements and the neighborhood character. This relief would allow a modest remodel/addition consistent with surrounding homes in the neighborhood, also allowing the homeowner to have the same rights as other lots within the neighborhood while preserving all essential utilities, storm water, and public safety functions.

This property is unlike typical lots in the R-1-8 zone. Its irregular shape combined with the presence of multiple utility easements including natural gas lines, (not just the property but for the entire neighborhood), storm water infrastructure, (again for the entire neighborhood), electrical junctions for city street lights and neighbor's property, with main electrical wires installed on average 1-2 feet below grade on three sides of property, as well as low-voltage cable/internet boxes in return these dramatically reduces the buildable area. Additionally, the rear (South-west) portion of the lot contains an outdated water retention basin from 1976, further limiting practical construction options. On the west and south boundaries, UDOT easements create additional constraints that neighboring properties do not face.

The combination of these circumstances creates a genuine hardship. Literal enforcement of the setback requirements would leave portions of the lot unusable for residential development, depriving the property of the same reasonable buildable potential enjoyed by other lots in the district. These hardships are intrinsic to this property and are not the result of economic considerations, self-imposed conditions, or actions of previous owners.

Granting this variance would allow the homeowner to reasonably develop the property in a way that is consistent with the neighborhood and does not compromise safety, aesthetics, or public interest. The requested setbacks still provide ample space from adjacent properties and roadways, while allowing proper access for utilities and storm water management. The proposed changes preserve the spirit of the zoning ordinance, ensuring that open space, light, and safety are maintained.

In short, this property's unique configuration and infrastructure limitations make the requested variance essential for the enjoyment of a substantial property right to a long term Sandy City residence. With the ability to remodel/add-on to a single-family home consistent with other R-1-8 properties within the neighborhood. We believe that granting this variance is a reasonable, measured solution that balances the needs of the property owner with the interests of the community.

We respectfully request that the Board approve this variance, allowing us to proceed with development in a manner that is practical, respectful of all existing easements, and consistent with the public interest.

Thank you for your time and consideration

Derek Thompson 8230 S 1330 E Sandy, UT 84093



SANDY CITY PUBLIC UTILITIES

TOM WARD. P.E.
PUBLIC UTILTIES DIRECTOR

MONICA ZOLTANSKI MAYOR

SHANE E. PACE CHIEF ADMINISTRATIVE OFFICER

June 20, 2025

Derek Thompson 8230 South 1330 East Sandy, UT 84092

Dear Mr. Thompson

We have reviewed our drawings regarding the utility easement on the south side of the property located at 8230 South 1330 East in Sandy. It appears that this easement was in use but is no longer being used by Sandy City Public Utilities and does not have any planned projects which would require the use of this easement. However, if at a future time, the City requires the use of the easement the property owner is responsible for the cost of removal of the encroaching structures.

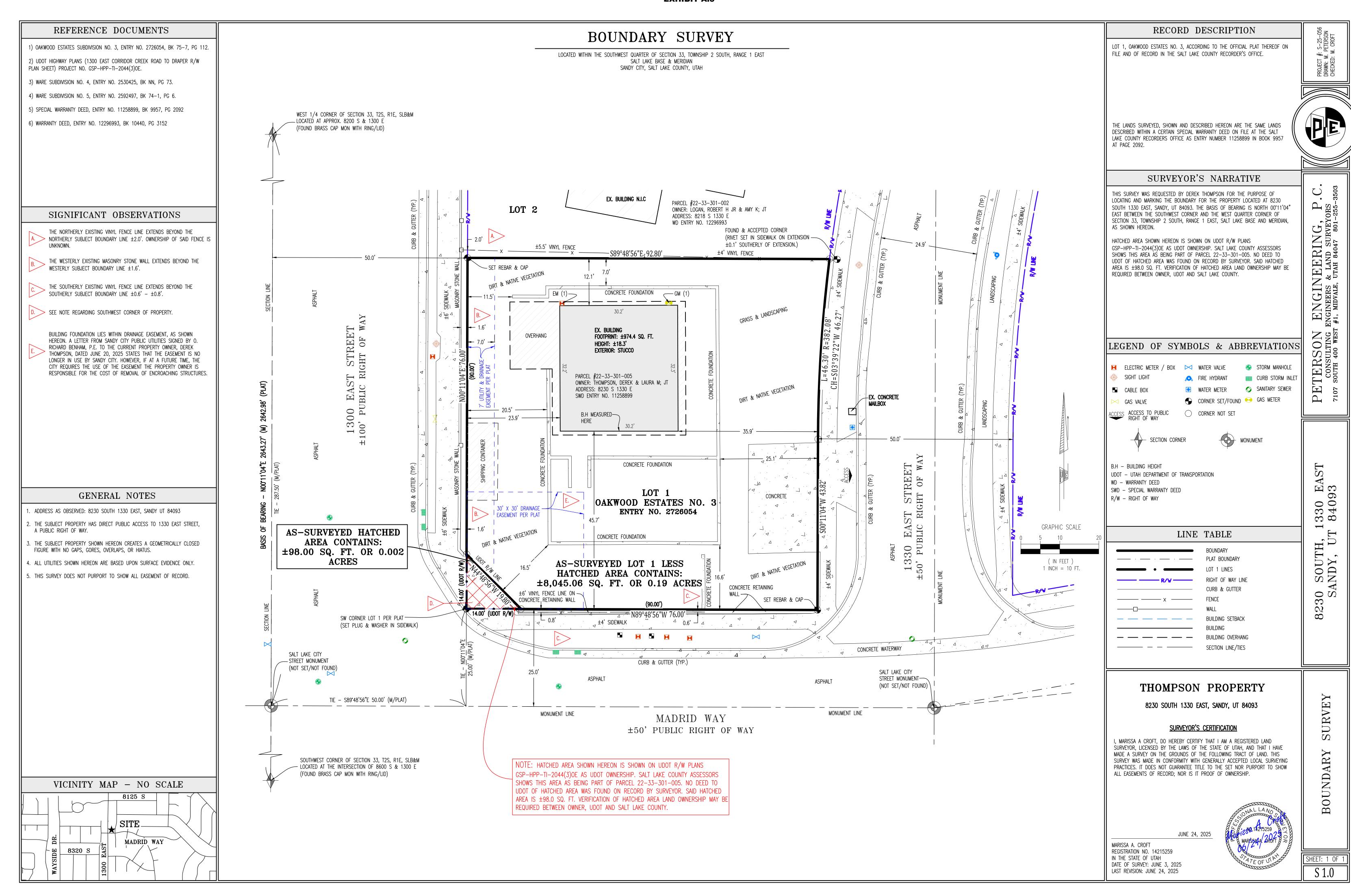
Any Sandy City facilities that are not shown on the drawings but are located by Blue Stakes or excavation that require relocation will be at no cost to the City. The relocation of the utility will require approval from Sandy City.

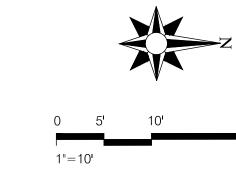
Please contact Blue Stakes at (801) 208-2100 before any digging begins.

If you have any questions regarding this matter, please call me at (801)568-6074. Sincerely

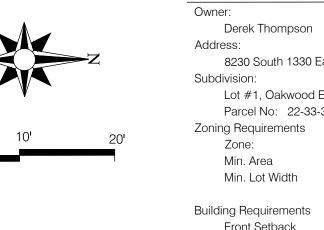
O. Richard Benham, P.E. Engineering Manager

cc: file





PROPERTY INFORMATION



8230 South 1330 East, Sandy Utah Lot #1, Oakwood Estates #3 Parcel No: 22-33-301-005-0000 R1-8 8,000 sf 70 feet Front Setback 25 feet Side Yard Setback 10 feet Rear Yard Setback 15 feet 35 feet Max Building Height Max Lot Coverage 40%

SWPPP Notes

-BMPS must follow EPA construction standards-

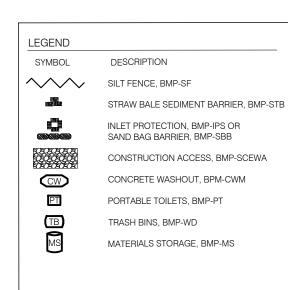
- 1. Contractor shall be responsible for submitting a Notice of Intent (NOI) to be reviewed and approved by the Utah DWQ. 2. The NOI must be submitted to DWQ 45 days prior to the start of construction and may entitle coverage under the Utah DWQ General
- Permit for Storm Water Discharges associated with construction activity. 3. A UPDES Storm Water Discharge Permit may be required. The Contractor shall be considered the Permittee.
- 4. Provide sediment control at all points where storm water runoff leaves the site, including waterways, overland sheet flow, and storm sewers.
- 5. Silt fence or Earth berm to be installed perpendicular to the downhill
- 6. All erosion control Best Management Practices shall be inspected and maintained regularly and after every storm event 7. Place sand or gravel bags around existing storm drain collection systems
- to protect from sediment and debris. 8. Construction access shall be constructed with a minimum 6" deep gravel (3" to 6") size to prevent tracking of mud offsite and in a manner that will
- protect existing utilities, sidewalks, curb and gutter from damage. No dirt or debris shall be placed over the sidewalk or curb & gutter. If necessary, a perimeter control fence shall be installed around the project to channel access to the site through the tracking pad. 9. Tracking or spilling mud, dirt or debris upon streets, residential or commercial drives, sidewalks or bike paths is prohibited. Any such
- occurrence shall be cleaned up immediately. 10. A lined concrete wash out area must be provided at the site for all concrete, paint, stucco, or masonry work. Washout on ground is prohibited. Washout area can be used for any type of tool and or equipment cleanup.
- 11. If using a concrete pump truck, a water tight container shall be placed under the hopper to collect concrete spills and wash out water. 12. A chemical toilet is required to be on site during construction and located
- on a pervious surface anchored securely and behind the sidewalk or 8 feet away from curb or edge of asphalt. 13. Install a 3" curb cut back on the park strip from property line to property
- line as soon as foundation is backfilled. 14. Building site is to be cleaned on a regular basis. Garbage must be
- contained and removed regularly. 15. Street sweeping. Street and gutters shall be swept and kept clean at the
- end of each working day or as needed. 16. Dust Control. Take necessary action to keep dust down.

Site Grading Notes

- 1. All storm water and dirt will be kept on site during construction until final landscaping is finished.
- 2. Existing drainage patterns along property lines shall remain as is. Berms, swales, and/or silt fences maybe required to prevent storm water from flowing onto adjacent lots.
- 3. Drainage ditches or watercourses that are disturbed by construction shall be restored to the grades and cross-sections that existed prior to
- 4. Slope finish grade away from existing structures and foundations a minimum of 2% and maximum of 5% for 10 feet (3 to 6 inches). Provide all necessary horizontal and vertical transitions between new construction and existing surfaces for proper drainage.
- 5. All grading, excavation and backfilling work shall conform to the geotechnical soils report approved for this site. The report must include soil classification, soil bearing pressure and lateral equivalent fluid pressure. A geotechinical engineer must inspect excavations prior to any fill or concrete being placed.

General Notes

- 1. All construction to be performed in accordance with Local City Standards and Specifications. 2. Not all utilities are shown on this plan. Verify the location of all existing
- utilities including cables, conduits, pipes, water lines, gas lines, etc. by contacting a utility locating service such as Blue Stakes to mark utility locations prior to construction.
- 3. Protect existing utilities, structures, and street improvements which are to remain in place, from damage. Any utilities, structures or improvements damaged due to construction shall be repaired or replaced to the cities



ATTENTION!

IT IS IMPORTANT FOR THE GENERAL CONTRACTOR TO UNDERSTAND THAT IT IS HIS/HER RESPONSIBILITY TO BE SURE THIS PROJECT IS CONSTRUCTED IN FULL COMPLIANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. THE PLANS ARE NOT ALL INCLUSIVE OF ALL MINIMUM CODES AND ORDINANCES. THIS FACT DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ALL MINIMUM STANDARDS. NO OMISSION FROM THESE PLANS GIVES PERMISSION FOR VIOLATION OF ANY CODE OR ORDINANCE. NO APPROVAL EVER GRANTS PERMISSION TO VIOLATE ANY CODE OR TOWN ORDINANCE.

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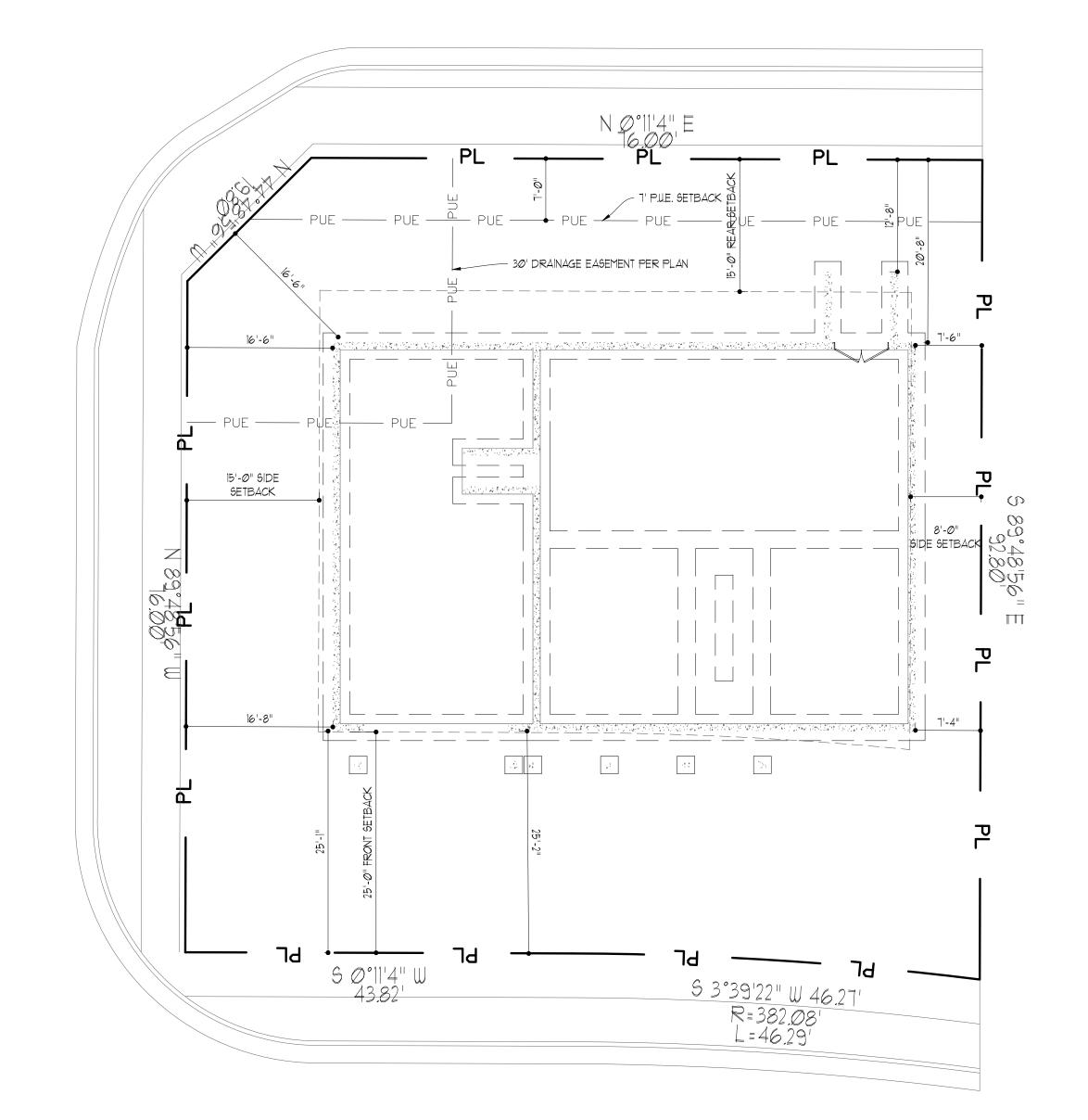
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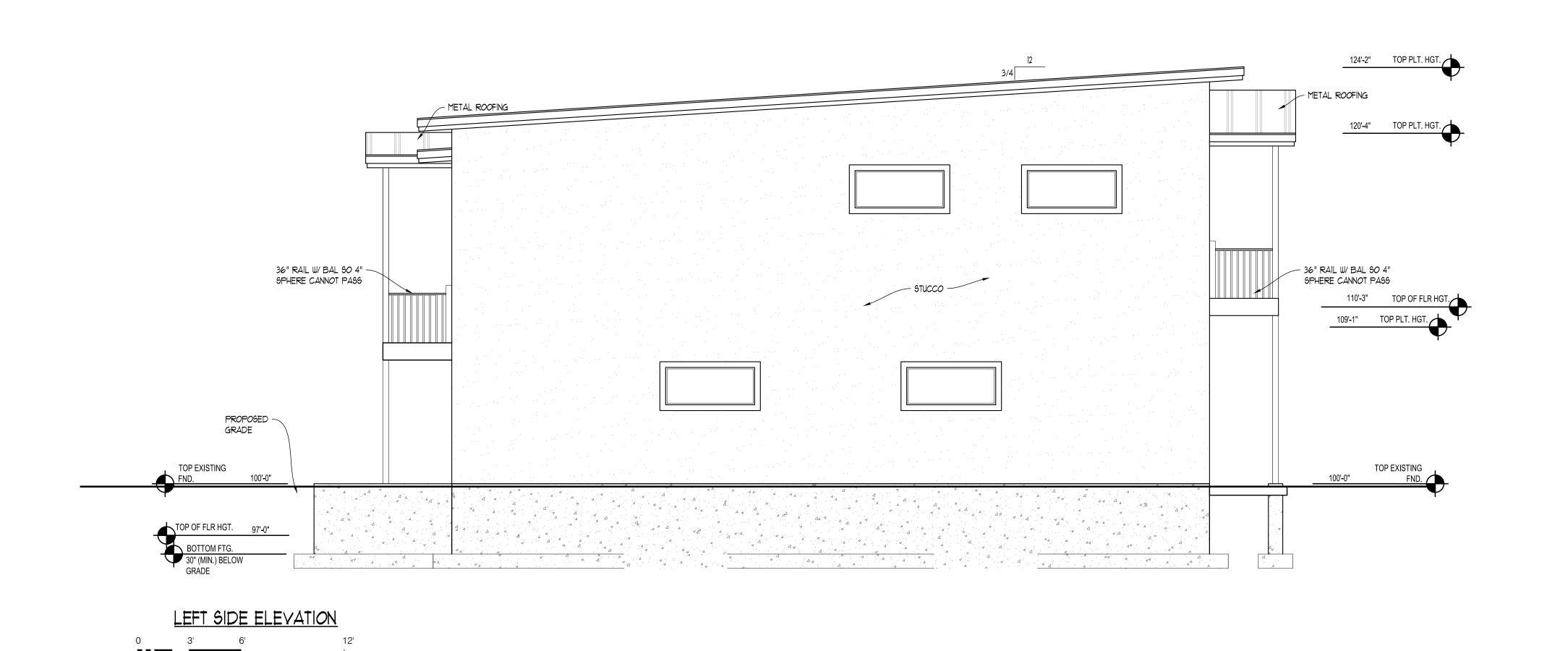
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PROJECT #:	043		DAVID KEITH
PROJECT: THOMPSON RESIDENCE ADDITION	STREET: 8230 SOUTH 1330 EAST	<u>CITY:</u> SANDY, UT 84093	COPIED WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION OF DAVID KEITH

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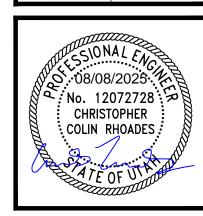
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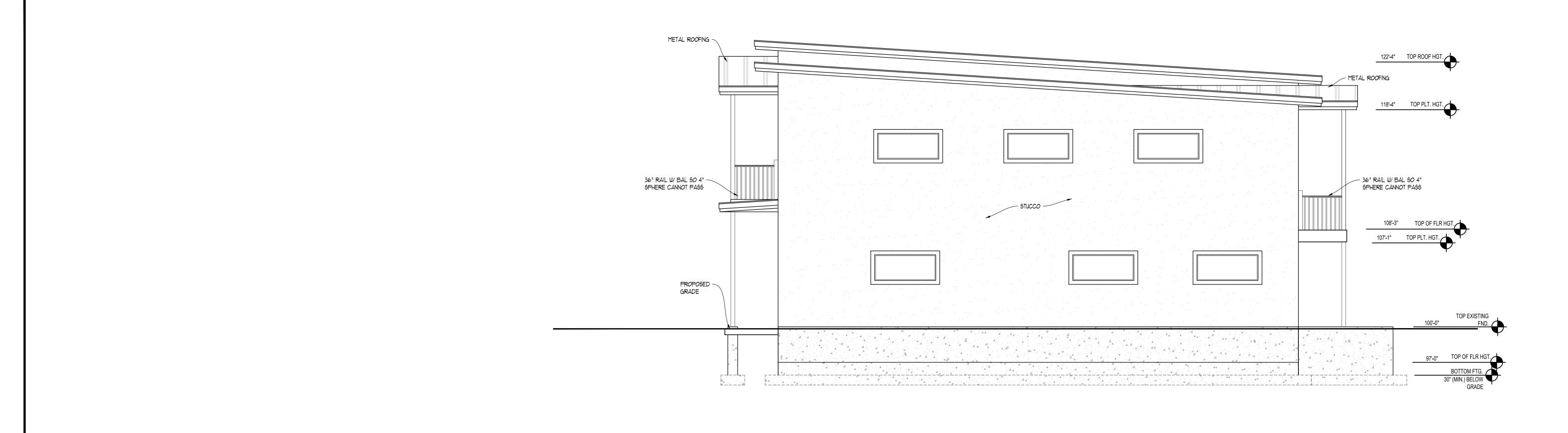


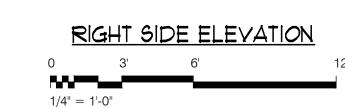
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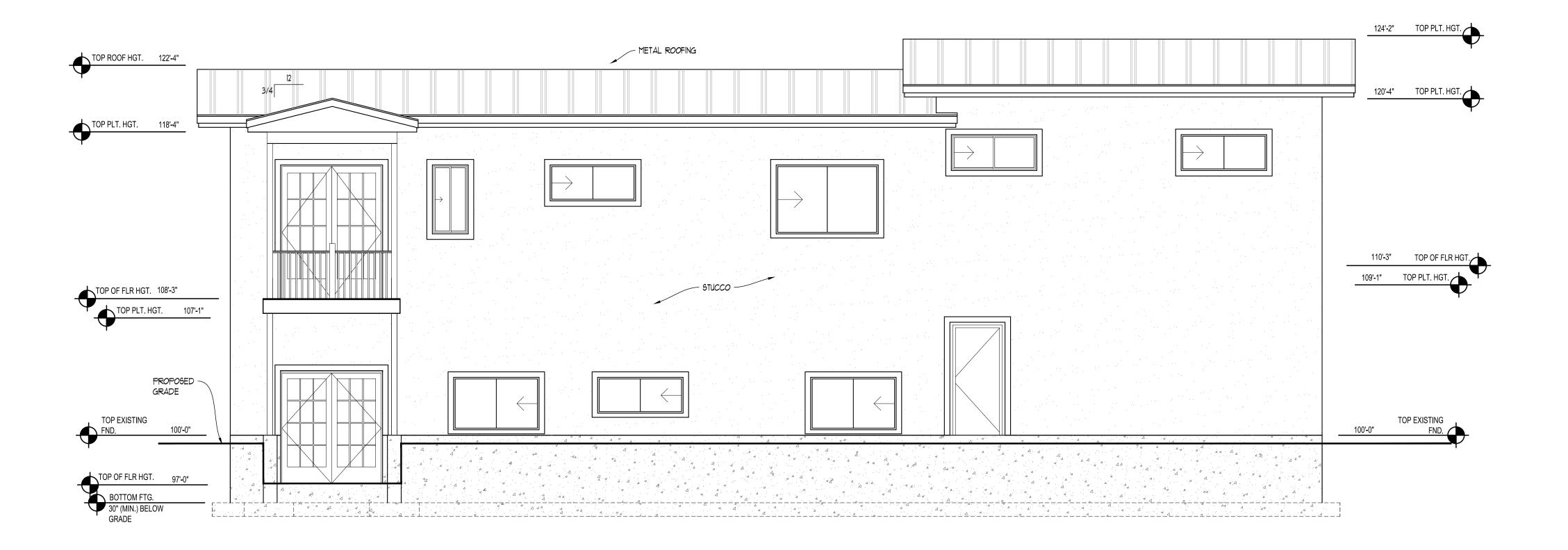
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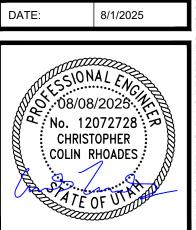


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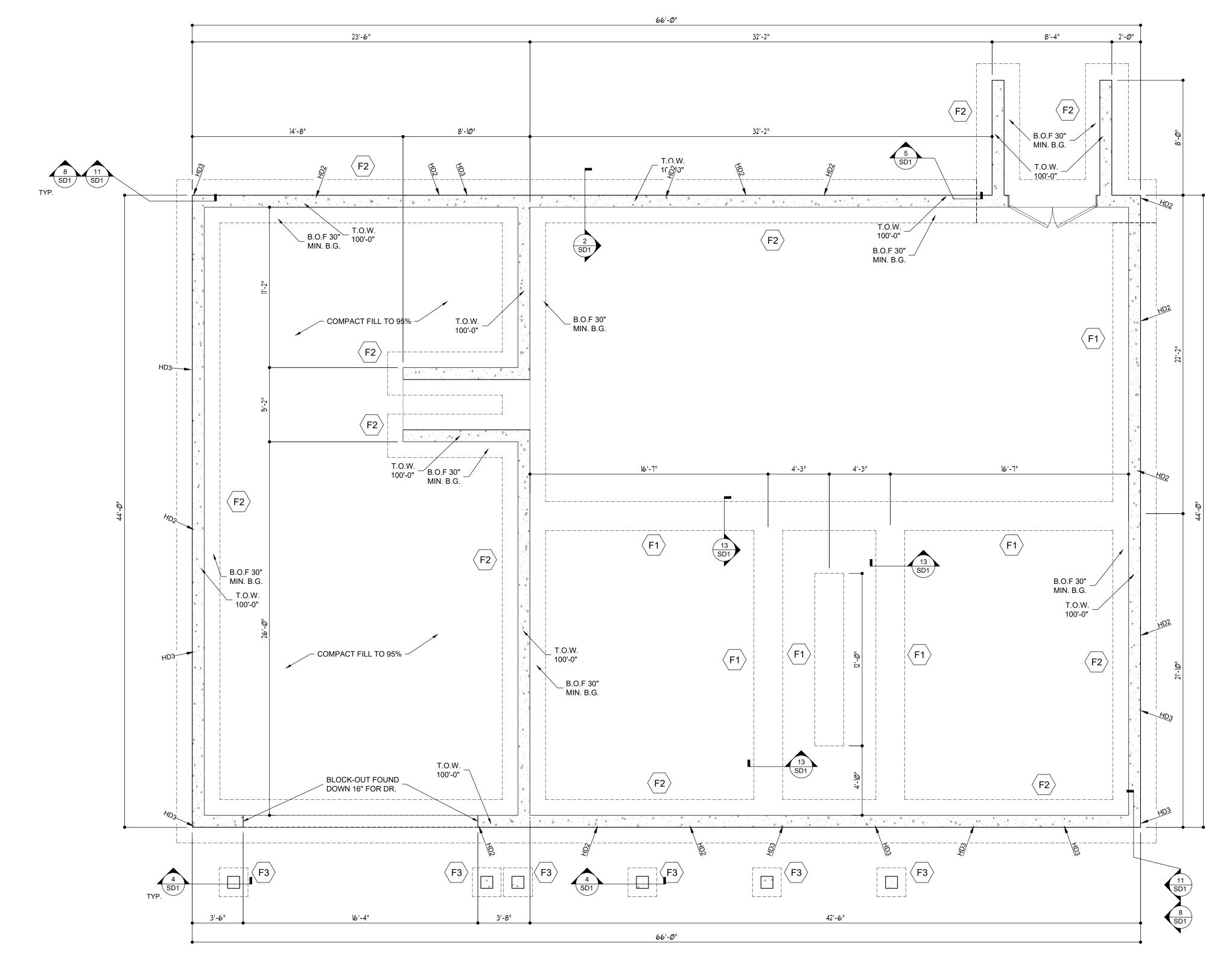
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MARK	FOOTING SIZE THICKNESS X WIDTH X LENGTH	LENGTHWISE	CROSSWISE	COMMENTS		
F1	10" X 20" X CONT.	(2) #4	NONE	ALL FOOTINGS U.N.O.		
F2	10" X 24" X CONT.	(2) #4	NONE			
F3	10" X 24" X 24"	(3) #4	(3) #4			

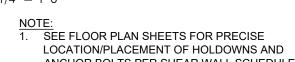
	TYPICAL WALL REINFORCEMENT							
MAX. HEIGHT	MIN. THICKNESS	VERTICAL STEEL(1)	HORIZONTAL STEEL (2)	STEEL AT OPENINGS(3)	MAX. LINTEL LENGTH	MIN. LINTEL DEPTH		
2'	6"	#4 @ 18" O.C.	2-#4 BARS EVENLY SPACED		2'			
3'	8"	#4 @ 18" O.C.	3-#4 BARS EVENLY SPACED	2-#4 BARS ABOVE, 1-#4 BAR EA. SIDE & BELOW	2'			
4'	8"	#4 @ 18" O.C.	4-#4 BARS EVENLY SPACED		3'			
6'	8"	#4 @ 18" O.C.	5-#4 BARS EVENLY SPACED		6'	2" PER FOOT OF OPENING WIDTH		
8'	8"	#4 @ 18" O.C.	6-#4 BARS EVENLY SPACED		6'			
9'	8"	#4 @ 16" O.C.	7-#4 BARS EVENLY SPACED		6'			

- (1) PLACED AT CENTER OF WALL, EXTENDING FROM FOOTING TO WITHIN 3" FROM TOP OF
- (2) ONE BAR WITHIN 4" OF TOP OF WALL ONE BAR WITHIN 4 INCHES OF THE BOTTOM OF
- (3) BARS TO BE PLACED WITHIN 2" OF OPENINGS AND EXTEND 24" BEYOND EDGE. VERTICAL BARS MAY TERMINATE WITHIN 3" OF TOP OF WALL.
- (4) SOIL BACKFILL SHALL BE SOIL CLASSIFICATION TYPES GW, GP, SW, OR SP. SOIL SHALL NOT
- BE SUBMERGED OR SATURATED IN GROUNDWATER. (5) FROST DEPTH TO BE MIN. 30" BELOW GRADE UNLESS OTHERWISE SPECIFIED.

Н	HDX HOLDOWN SCHEDULE							
MARK	HOLDOWN	ANCHOR BOLT	MIN. POST SIZE	RETRO FIT HOLDOWN	ANCHOR BOLT	EPOXY	MIN. EMBEDMENT DEPTH (INCHES)	COMMENTS
HD1	CS14	N/A		N/A	N/A	N/A	N/A	
HD2	STHD10RJ	N/A	3"X3-1/2"	HDU5-SDS2.5	<u>5</u> "Ø	SIMPSON SET 3G	14"	
HD3	STHD14RJ	N/A	3"X3-1/2"	HDU8-SDS2.5	₹"Ø	SIMPSON SET 3G	16"	

- 1. ALL ANCHORS ARE SIMPSON STRONG TIE.
- 2. INSTALL PER MANUFACTURER'S SPECIFICATIONS. 3. USE STANDARD MODELS (NOT RJ) WHEN INSTALLING AT SLAB ON GRADE LOCATIONS.
- 4. VERTICAL FLOOR TO FLOOR INSTALLATION, NAILS NOT REQUIRED AT RIM BOARD & SILL PLATE 5. NOT ALL HOLDOWNS ARE USED, REFER TO SHEAR WALL AND FOUNDATION PLANS FOR REQUIREMENTS
- 6. ALL RETRO FIT ANCHOR BOLTS REQUIRE F1554 Gr. 36 ANCHOR BOLTS
- 7. CONCRETE IS ASSUMED TO HAVE A STRENGTH OF 3,000 PSI





ANCHOR BOLTS PER SHEAR WALL SCHEDULES.

2. SEE SCHEDULES ON BASEMENT PLAN FOR SIZES FOR DOORS AND WINDOWS THAT ARE FORMED IN FOUNDATION.

TYPICAL U.N.O:
1. EXTERIOR WALLS: 2X6 STUDS @ 16" O.C.
2. INTERIOR WALLS: 2X4 STUDS @ 16" O.C.

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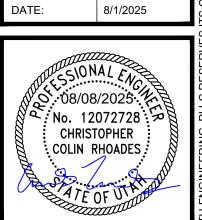


PROJECT: THOMPSON RESIDENCE ADDITION	PROJECT #:
STREET: 8230 SOUTH 1330 EAST CITY: SANDY, UT 84093	043

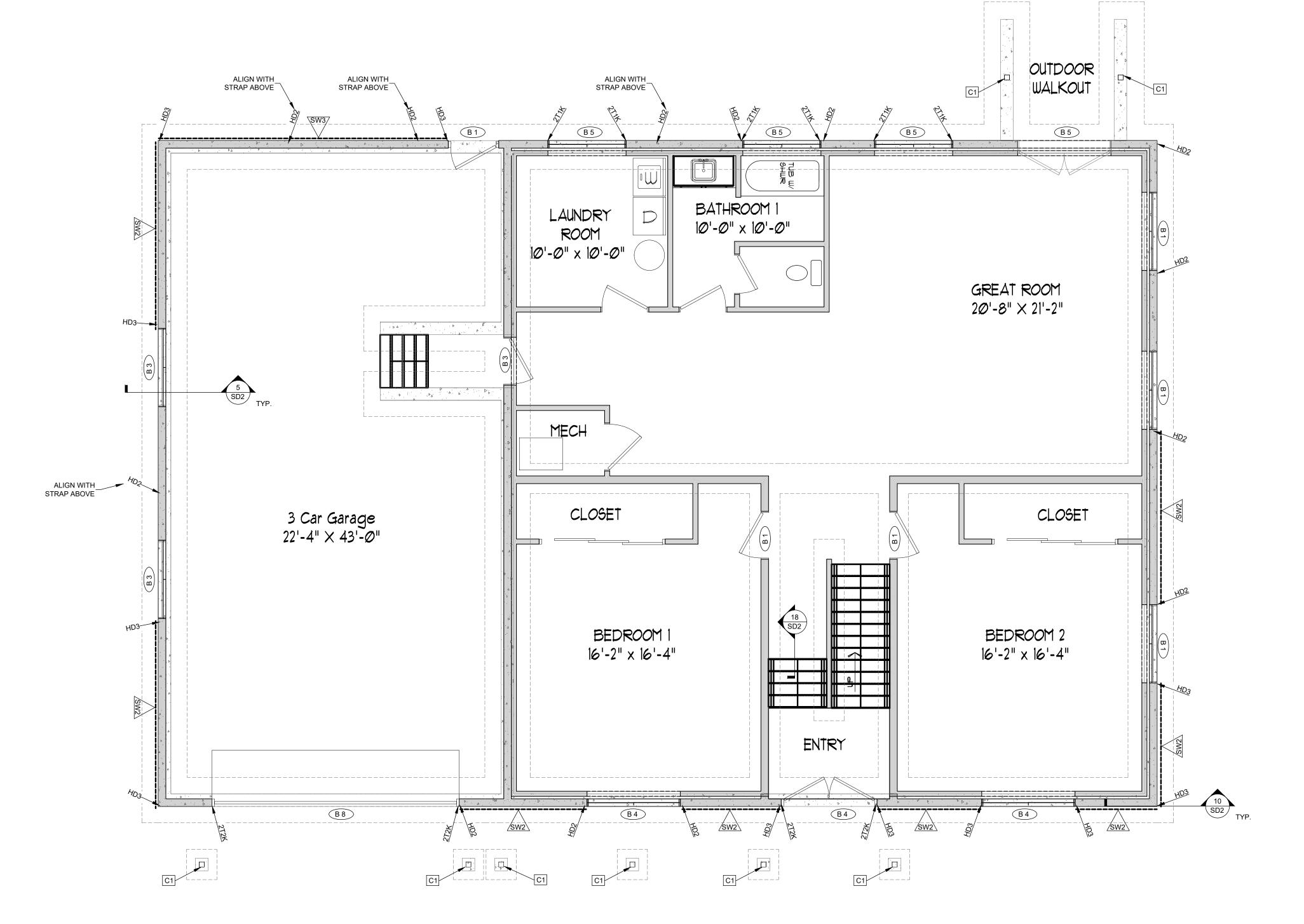
CONTRACTOR CONDITIONS {	
SHEET SIZE:	ARCH D 24X36

TION PLAN PLAN	
FOOTING & FOUNDATION PLAN BASEMENT STRUCT, PLAN	

	<u>AREAS</u>				
	2ND FLOOR SQ. FT.	2904			
	MAIN FLOOR SQ. FT.	1899			
	BASEMENT SQ. FT.	-			
	COLD STRG. SQ. FT.	-			
	SUSP. SLAB SQ. FT.	1			
	BONUS SQ. FT.	-			
	DECK SQ. FT.				
	ADDITION SQ. FT.	-			
	LIVING SPACE ABV. GRADE				
	TOTAL SQ. FT.				
i					



		7
AWN BY:	J.STEWART	AVID
OJ. ENGINEER:		



MAIN FLOOR STRUCT. PLAN

TYPICAL U.N.O:

1. EXTERIOR WALLS: 2X6 @ 16" O.C.
2. INTERIOR WALLS: 2X4 @ 16" O.C.

1/4" = 1'-0"

XX	BEA	M SCHEDULE
MARK	BEAM SIZE	COMMENTS
B1	(2) 2X6 DF-L #2	ALL EXTERIORS OPENINGS, TYP. U.N.O.
B2	(2) 2X8 DF-L #2	
В3	(3) 2X6 DF-L #2	
В4	(3) 2X8 DF-L #2	
B5	(3) 2X10 DF-L #2	
В6	(1)1.75"X11.875" 2.0E MICROLLAM	
В7	(2)1.75"X11.875" 2.0E MICROLLAM	
В8	(3)1.75"X11.875" 2.0E MICROLLAM	
В9	3.5"X10.5" 24F-V4 GLULAM	

XX	COLUMN SCHEDULE					
MARK	COLUMN SIZE	COMMENTS				
C1	4X4 DF-L #2 USE ABU44 POST BASE AND PC4Z POS					
C2	(2) 2X6 DF-L #2					

* #T = NUMBER TRIMMER STUDS #K = NUMBER OF KING STUDS 1T1K ALL FRAMED OPENINGS, TYP. U.N.O.

= POINT LOAD FROM ABOVE. PROVIDE BLOCKING OR POST TO MATCH DIMENSIONS OF POST ABOVE.

8/1/2025

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ANY CODE OR TOWN ORDINANCE. IECC (MEC) AND ALL UTAH STATE AMENDED

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RESPONSIBILITY. (CHECK PLANS CAREFULLY

BEFORE CONSTRUCTION.)

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MENT EWS)	NOTES
	ALL WALLS NOT SPECIFIED W/ SHEAR WALL CALLOUTS

TYPE	NAIL SF	ACING	NAIL SIZE	1 ½ 16 GAGE STA	APLE SPACING			ATEDIAL BOTTOMT EXTENTIONMENT		BOTTOWITE/TE/TIT/TOTIMENT	NOTES
11175	FIELD	EDGES	NAIL SIZE	FIELD	EDGES	WATERIAL	($rac{5}{8}$ " / $rac{1}{2}$ " ANCHOR BOLT)	(16d NAILS OR #14 SCREWS)	NOTES		
ALL WALLS	12"	6"	8d	12"	6"	7/16" OSB	48" / 32" O.C.	16d NAILS @ 6" O.C.	ALL WALLS NOT SPECIFIED W/ SHEAR WALL CALLOUTS		
SW1	12"	6"	8d	N/A	N/A	7/16" OSB	46" / 32" O.C.	16d NAILS @ 6" O.C.			
SW2	12"	4"	8d	N/A	N/A	7 ₁₆ " OSB	36" / 28" O.C.	16d NAILS @ 6" O.C.	SHEAR WALL TO BE BLOCKED		
SW3	12"	3"	8d	N/A	N/A	7" OSB	28" / 20" O.C.	N/A	SHEAR WALL TO BE BLOCKED		

SHEAR WALL SCHEDULE

HOLDOWN SCHEDULE RETRO FIT ANCHOR HOLDOWN BOLT ANCHOR BOLT MIN. POST SIZE HOLDOWN DEPTH (INCHES) CS14

N/A 3"X3-1/2" HDU8-SDS2.5 $\frac{7}{8}$ "Ø SIMPSON SET 3G

HDU5-SDS2.5 5"Ø SIMPSON SET 3G

NOTES:

HD2

HD3

1. ALL ANCHORS ARE SIMPSON STRONG TIE.

STHD10RJ

STHD14RJ

2. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

3. USE STANDARD MODELS (NOT RJ) WHEN INSTALLING AT SLAB ON GRADE LOCATIONS.

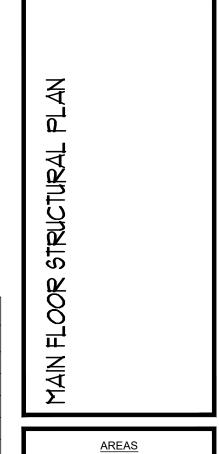
4. VERTICAL FLOOR TO FLOOR INSTALLATION, NAILS NOT REQUIRED AT RIM BOARD & SILL PLATE

6. ALL RETRO FIT ANCHOR BOLTS REQUIRE F1554 Gr. 36 ANCHOR BOLTS 7. CONCRETE IS ASSUMED TO HAVE A STRENGTH OF 3,000 PSI

5. NOT ALL HOLDOWNS ARE USED, REFER TO SHEAR WALL AND FOUNDATION PLANS FOR REQUIREMENTS

PROJECT: THOMPSON RESIDENCE ADDITION	PROJECT #:
STREET: 8230 SOUTH 1330 EAST	043
CITY: SANDY, UT 84093	

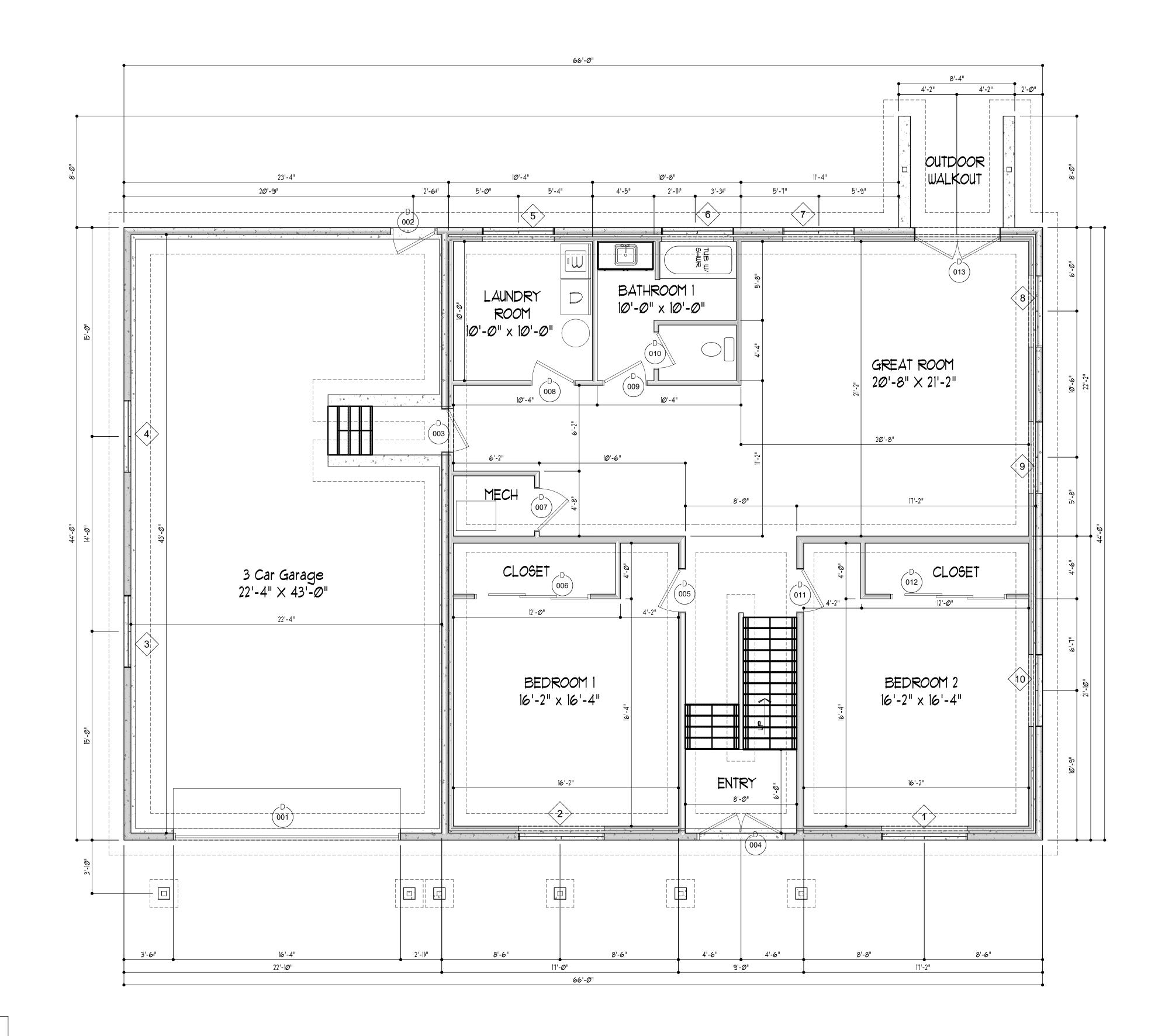
	TO VERIFY ALL & DIMENSIONS
SHEET SIZE:	ARCH D 24X36



							
	2ND FLOOR SQ. FT.	2904					
	MAIN FLOOR SQ. FT.	1899					
	BASEMENT SQ. FT.						
	COLD STRG. SQ. FT.	-					
	SUSP. SLAB SQ. FT.	1					
	BONUS SQ. FT.	-					
	DECK SQ. FT.	1					
	ADDITION SQ. FT.	-					
	LIVING SPACE ABV. GRADE						
	TOTAL SQ. FT.						
,		·					

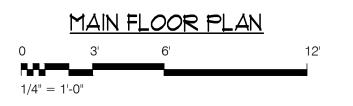
No. 12072728 CHRISTOPHER COLIN RHOADES

15	DRAWN BY:	J.STEWART
	PROJ. ENGINEER:	
W RE		



WINDOW SCHEDULE					
	S	ΙΖΕ			
MARK	MIDTH	HEIGHT	Style	Remarks	Head Height
1	6'-0"	4'-Ø"	SLIDER		4'-5"
2	6-0	4'-0"	SLĪ	1	4'-5"
3	-Ø -5	2'-Ø"	Ü	1	6'-8"
4	5'-0"	2'-Ø"	Ü	-	6'-8"
5	- 5	3'-0"	SLĪDER	-	4'-5"
6	5'-Ø"	2'-Ø"	SLIDER		4'-5"
7	₽. ₽.	3'-Ø"	SLIDER	-	4'-5"
8	- 5	2'-Ø"	Ü	1	© ©
9	5'-0"	2'-Ø"	Ü		6'-0"
100	5'-Ø"	2'-Ø"	FG		6'-0"

DOOR AND FRAME SCHEDULE					
	S	IZE			
MARK	WIDTH	HEIGHT	STYLE	SWING	REMARKS
001	16'-0"	6'-8"	GAR SQWR	NΑ	
ØØ2	3'-Ø"	6'-8"	Standard	Left	
<i>Ø</i> Ø3	3'-Ø"	6'-8"	DOOR	Left	
<i>0</i> 04	PR 3'-Ø"	6'-8"	Hinged - Double - 6 Panel Half Lite	NA	
ØØ5	3'-Ø"	6'-8"	DOOR	Right	
006	3 @ 2'-8"	6'-8"	Sliding Triple	Left	
ØØ7	3'-Ø"	6'-8"	DOOR	Right	
ØØ8	3'-Ø"	6'-8"	DOOR	Right	
009	3'-Ø"	6'-8"	DOOR	Left	
Ø1Ø	2'-6"	6'-8"	DOOR	Left	
Ø11	3'-Ø"	6'-8"	DOOR	Left	
Ø12	3 @ 2'-8"	6'-8"	Sliding Triple	Left	
Ø13	PR 3'-Ø"	6'-8"	Hinged - Double - Full Lite	NΑ	TEMP

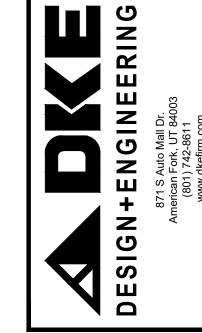


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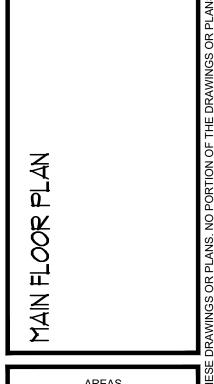
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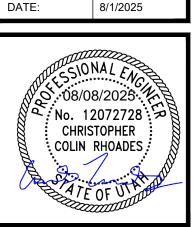


PROJECT #:	043	
PROJECT: THOMPSON RESIDENCE ADDITION	STREET: 8230 SOUTH 1330 EAST	<u>CITY:</u> SANDY, UT 84093

	TO VERIFY ALL & DIMENSIONS	יוסיים מוסיים
SHEET SIZE:	ARCH D 24X36	

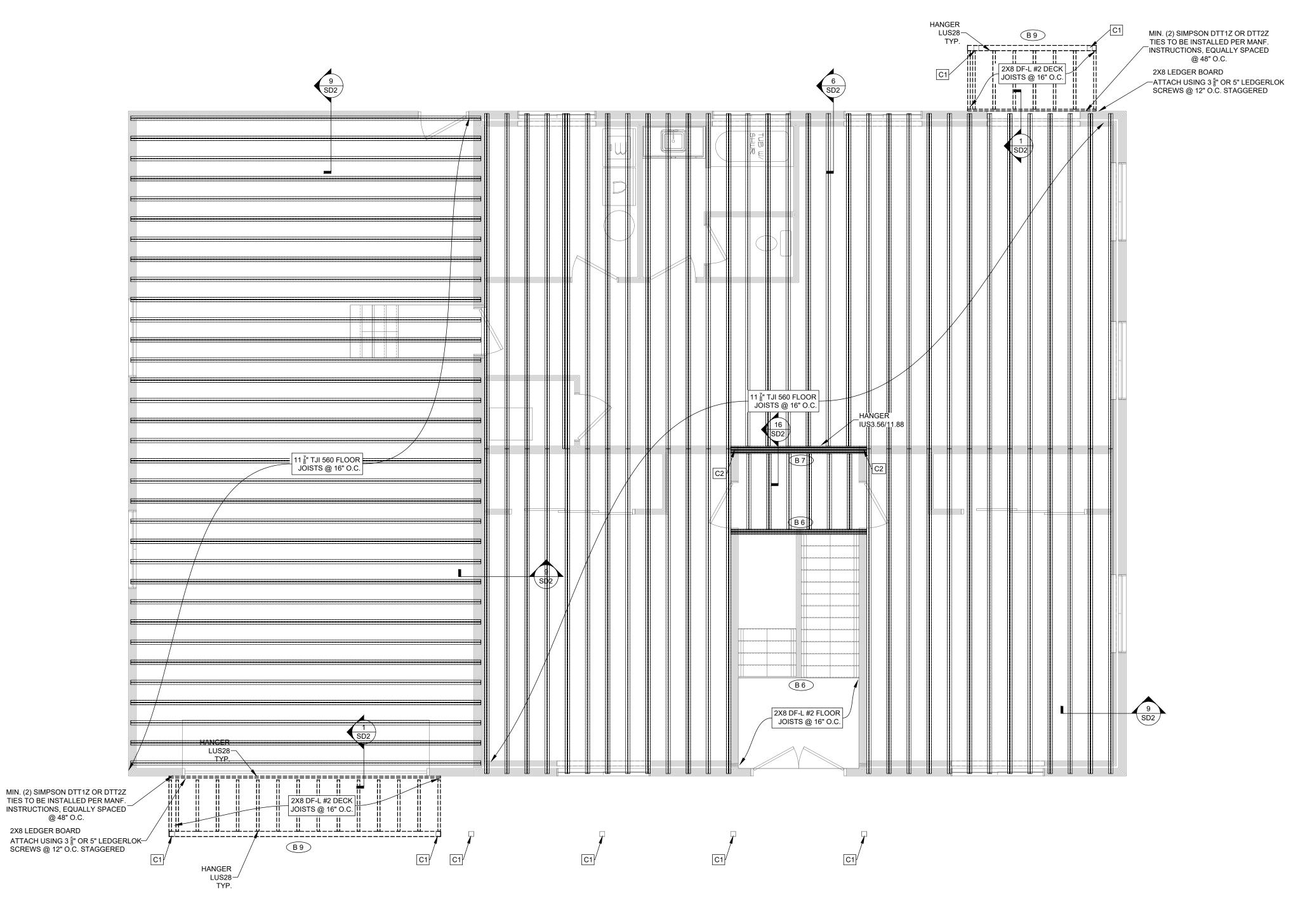


ARI	<u>-AS</u>
2ND FLOOR SQ. FT.	2904
MAIN FLOOR SQ. FT.	1899
BASEMENT SQ. FT.	
COLD STRG. SQ. FT.	
SUSP. SLAB SQ. FT.	
BONUS SQ. FT.	-
DECK SQ. FT.	
ADDITION SQ. FT.	
LIVING SPACE ABV. GRADE	
TOTAL SQ. FT.	
DATE:	8/1/2025



		. 5
DRAWN BY:	J.STEWART	
PROJ. ENGINEER:		

A2.1



XX	BEAM SCHEDULE		
MARK	BEAM SIZE	COMMENTS	
B1	(2) 2X6 DF-L #2	ALL EXTERIORS OPENINGS, TYP. U.N.O.	
B2	(2) 2X8 DF-L #2		
В3	(3) 2X6 DF-L #2		
B4	(3) 2X8 DF-L #2		
B5	(3) 2X10 DF-L #2		
В6	(1)1.75"X11.875" 2.0E MICROLLAM		
B7	(2)1.75"X11.875" 2.0E MICROLLAM		
B8	(3)1.75"X11.875" 2.0E MICROLLAM		
В9	3.5"X10.5" 24F-V4 GLULAM		

* ALL EXTERIOR GLULAM BEAMS TO BE TREATED FOR EXTERIOR USE

XX	COLUMN SCHEDULE		
MARK	COLUMN SIZE	COMMENTS	
C1	4X4 DF-L #2	USE ABU44 POST BASE AND PC4Z POST CAF	
C2	(2) 2X6 DF-L #2		

* #T = NUMBER TRIMMER STUDS #K = NUMBER OF KING STUDS 1T1K ALL FRAMED OPENINGS, TYP. U.N.O.

= POINT LOAD FROM ABOVE. PROVIDE BLOCKING OR POST TO MATCH DIMENSIONS OF POST ABOVE.

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			IN KF
PROJECT #:	043		עעט שכ
PROJECT: THOMPSON RESIDENCE ADDITION	<u>STREET:</u> 8230 SOUTH 1330 EAST	<u>CITY:</u> SANDY, UT 84093	CODIED WITHOUT EIDST ORTAINING THE EXPRESS WRITTEN DEBMISSION OF DAVID KE

	TO VERIFY ALL & DIMENSIONS
SHEET SIZE:	ARCH D

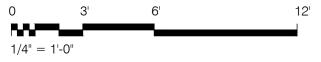
SECOND FLOOR FRAMING PLAN

	ARE	<u>EAS</u>
	2ND FLOOR SQ. FT.	2904
	MAIN FLOOR SQ. FT.	1899
	BASEMENT SQ. FT.	
	COLD STRG. SQ. FT.	
	SUSP. SLAB SQ. FT.	
	BONUS SQ. FT.	
	DECK SQ. FT.	
	ADDITION SQ. FT.	
	LIVING SPACE ABV. GRADE	
	TOTAL SQ. FT.	
i		
	DATE:	8/1/2025

DAIL.	6/1/2025
No. 12 CHRIS	NAL FAC 8/2025 2072728 STOPHER RHOADES

		. :
DRAWN BY:	J.STEWART	
PROJ. ENGINEER:		ľ
		-

SHEET#



FLOOR JOIST:

1. NO FLOOR JOIST SHALL RUN

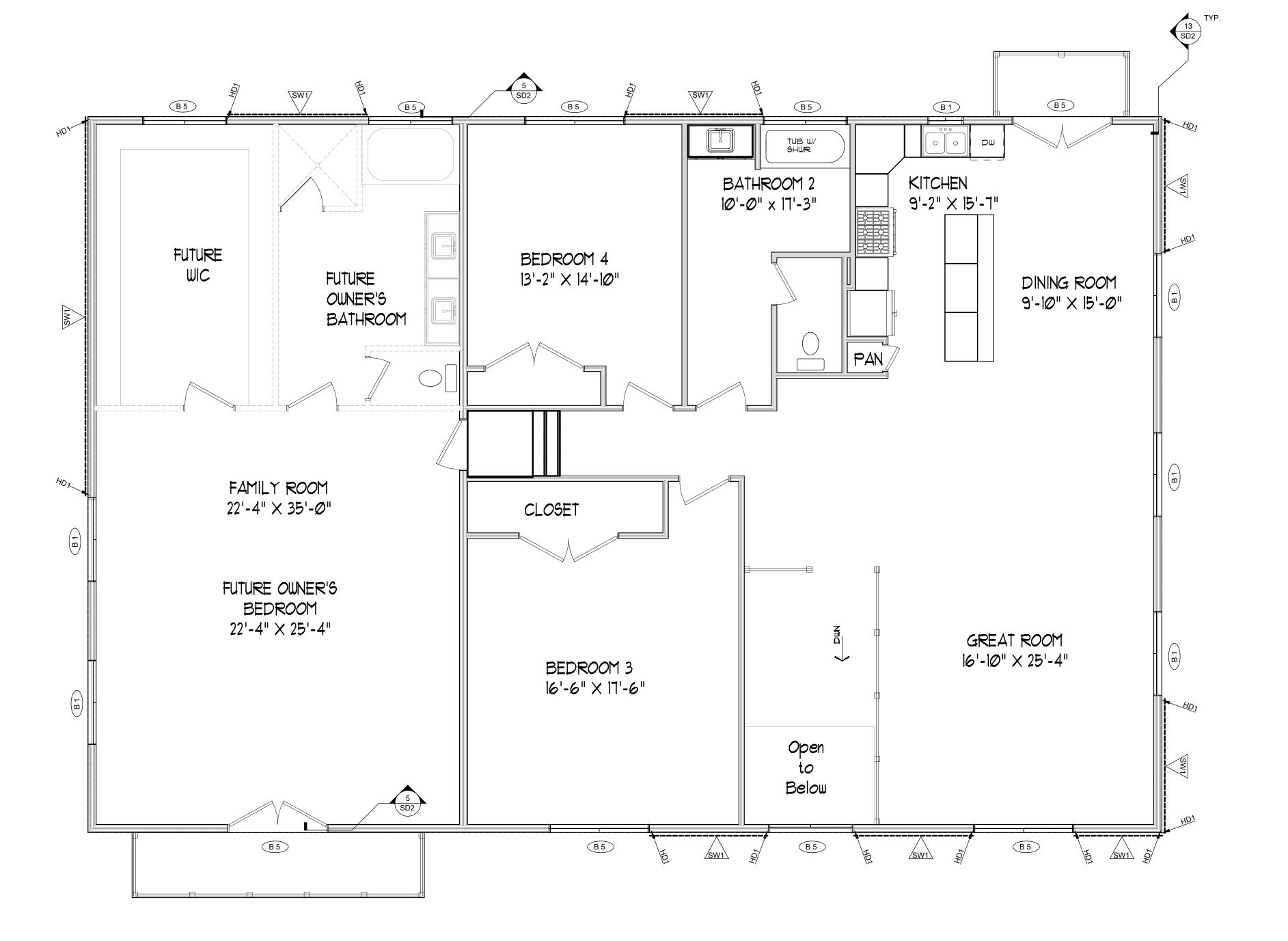
DIRECTLY UNDER A PLUMBING WALL.
2. ALLOW 4" OPENING 12 1/2" AWAY FROM A PLUMBING WALL W/ A TOILET.

3. ALLOW 2" OPENING 7 1/2" AWAY FROM A PLUMBING WALL W/ A TUB.

4. SOLID BLOCK OVER BEARING POINTS. 5. FLOOR JOISTS TO BE INSTALLED PER MANF. INSTRUCTIONS.

1. FLOOR SHEATHING TO BE $\frac{3}{4}$ " OSB T & G

GLUED, NAILED W/ 10d 6,6,12



XX	BEAM SCHEDULE			
MARK	BEAM SIZE	COMMENTS		
B1	(2) 2X6 DF-L #2	ALL EXTERIORS OPENINGS, TYP. U.		
B2	(2) 2X8 DF-L #2			
В3	(3) 2X6 DF-L #2			
B4	(3) 2X8 DF-L #2			
B5	(3) 2X10 DF-L #2			
В6	(1)1.75"X11.875" 2.0E MICROLLAM			
В7	(2)1.75"X11.875" 2.0E MICROLLAM			
В8	(3)1.75"X11.875" 2.0E MICROLLAM			
В9	3.5"X10.5" 24F-V4 GLULAM			

XX	COLUMN SCHEDULE		
MARK	COLUMN SIZE	COMMENTS	
C1	4X4 DF-L #2	USE ABU44 POST BASE AND PC4Z POST CA	
C2	(2) 2X6 DF-L #2		
	MARK C1	MARK COLUMN SIZE C1 4X4 DF-L #2	

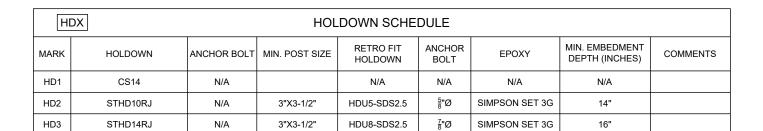
- * #T = NUMBER TRIMMER STUDS #K = NUMBER OF KING STUDS
- 1T1K ALL FRAMED OPENINGS, TYP. U.N.O. ■ = POINT LOAD FROM ABOVE.
 PROVIDE BLOCKING OR POST TO
- MATCH DIMENSIONS OF POST ABOVE.

SHEAR WALL TO BE BLOCKED

SECOND FLOOR STRUCT. PLAN

TYPICAL U.N.O:

1. EXTERIOR WALLS: 2X6 STUDS @ 16" O.C.
2. INTERIOR WALLS: 2X4 STUDS @ 16" O.C.



NOTES:

- 1. ALL ANCHORS ARE SIMPSON STRONG TIE. 2. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- 3. USE STANDARD MODELS (NOT RJ) WHEN INSTALLING AT SLAB ON GRADE LOCATIONS.
- 4. VERTICAL FLOOR TO FLOOR INSTALLATION, NAILS NOT REQUIRED AT RIM BOARD & SILL PLATE 5. NOT ALL HOLDOWNS ARE USED, REFER TO SHEAR WALL AND FOUNDATION PLANS FOR REQUIREMENTS
- 6. ALL RETRO FIT ANCHOR BOLTS REQUIRE F1554 Gr. 36 ANCHOR BOLTS

٥.	ALL INCOME AND THE ADDRESS OF THE AD
7.	CONCRETE IS ASSUMED TO HAVE A STRENGTH OF 3,000 PSI

NAIL SPACING 1 ½ 16 GAGE STAPLE SPACING SILL PLATE ATTACHMENT BOTTOM PLATE ATTACHMENT NOTES MATERIAL $(\frac{5}{8}$ " / $\frac{1}{2}$ " ANCHOR BOLT) FIELD EDGES FIELD EDGES ALL WALLS NOT SPECIFIED 16d NAILS @ 6" O.C. ALL WALLS 12" 6" 12" 6" 7₁₆" OSB 48" / 32" O.C. W/ SHEAR WALL CALLOUTS 16d NAILS @ 6" O.C. 7₁₆" OSB 46" / 32" O.C. N/A N/A SHEAR WALL TO BE BLOCKED 16d NAILS @ 6" O.C. 7₁₆" OSB 36" / 28" O.C. N/A N/A

28" / 20" O.C.

7₁₆" OSB

N/A

N/A

SHEAR WALL SCHEDULE

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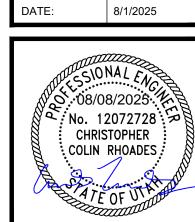


ROJECT #:	043		א חועסח ק
PROJECT: THOMPSON RESIDENCE ADDITION	<u>STREET:</u> 8230 SOUTH 1330 EAST	<u>CITY:</u> SANDY, UT 84093	COPIED WITHOUT IT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION OF DAVID KE

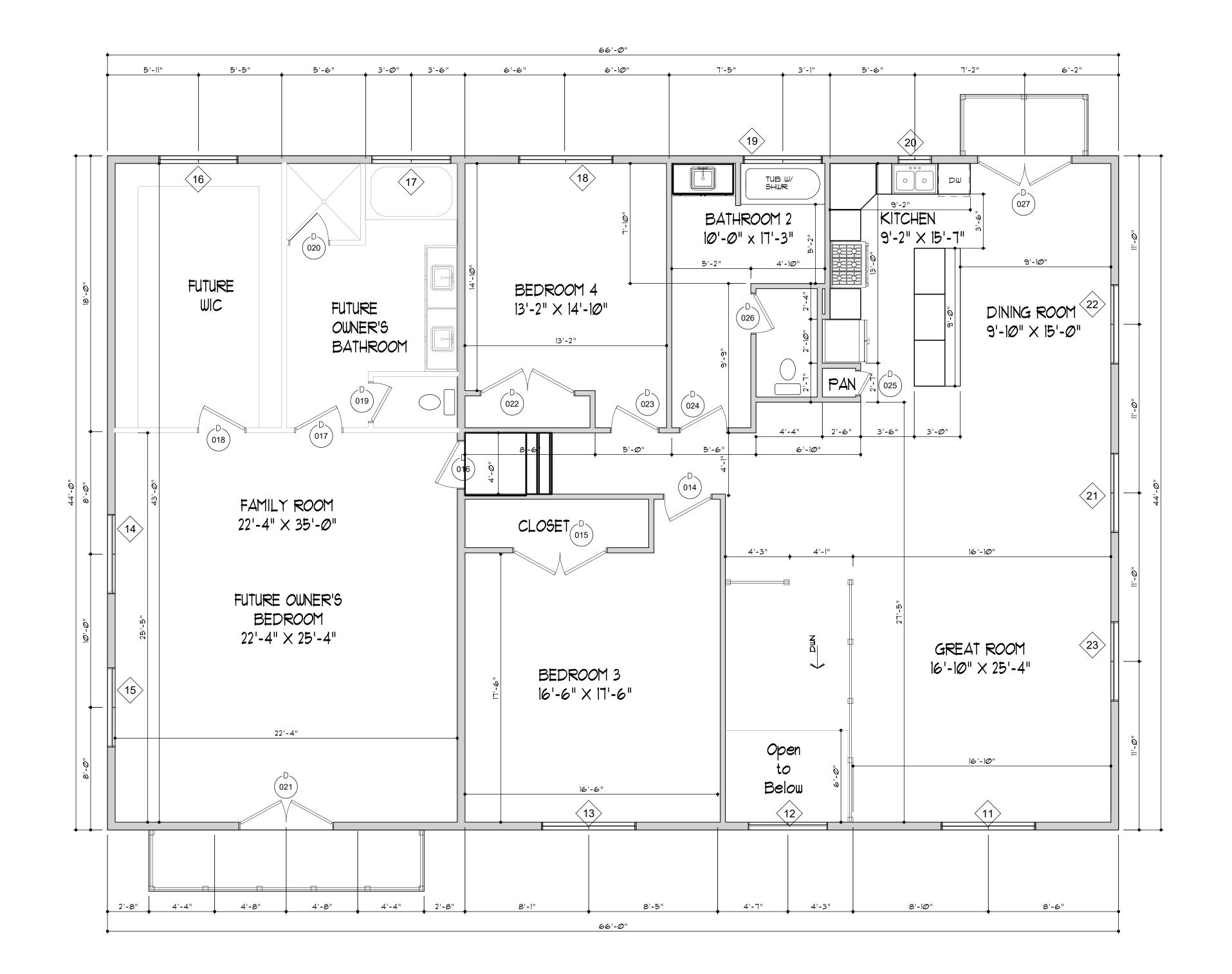
	TO VERIFY ALL & DIMENSIONS
SHEET SIZE:	ARCH D 24X36



	AREAS		
	2ND FLOOR SQ. FT.	2904	
	MAIN FLOOR SQ. FT.	1899	
	BASEMENT SQ. FT.		
	COLD STRG. SQ. FT.		
	SUSP. SLAB SQ. FT.		
	BONUS SQ. FT.		
	DECK SQ. FT.		
	ADDITION SQ. FT.		
	LIVING SPACE ABV. GRADE		
	TOTAL SQ. FT.		
ī			
	DATE:	8/1/2025	



		_ \
AWN BY:	J.STEWART	AVID
OJ. ENGINEER:		



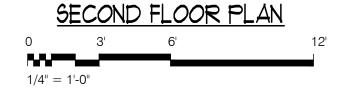
WINDOW SCHEDULE				
ight				

FG

8'-0"

DOOR AND FRAME SCHEDULE					
	S	IZE			
MARK	WIDTH	HEIGHT	STYLE	SWING	REMARKS
Ø14	3'-Ø"	8'-0"	DOOR	Left	
Ø15	PR 3'-0"	8'-0"	DBL. DRS.	NΑ	
Ø16	3'-Ø"	8'-0"	DOOR	Right	
Ø17	3'-Ø"	8'-0"	DOOR	Left	
Ø18	3'-Ø"	8'-0"	DOOR	Right	
Ø19	2'-6"	8'-0"	DOOR	Right	
Ø2Ø	2'-6"	8'-0"	SHWR DOOR	Left	TEMP SHOWER DOOR
Ø 21	PR 3'-0"	ප'-Ø"	Hinged - Double - Full Lite	NA	TEMP
Ø22 PR 3'-Ø" 8'-Ø" DBL. DRS. NA					
023 3'-0" 8'-0" DOOR Right					
024 3'-0" 6'-8" DOOR Left					
Ø25	1'-6"	6'-8"	DOOR	Right	
Ø26	2'-6"	6'-8"	DOOR	Left	
Ø27	PR 3'-0"	8'-0"	Hinged - Double - Full Lite	NΑ	TEMP

23 5'-Ø" 2'-Ø"

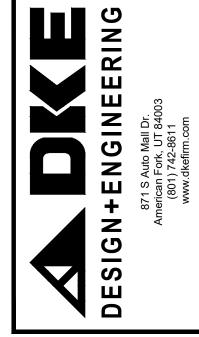


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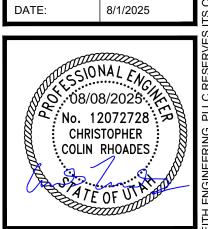


PROJECT: THOMPSON RESIDENCE ADDITION	PROJECT #:	
STREET: 3230 SOUTH 1330 EAST	043	
<u>SITY:</u> SANDY, UT 84093		
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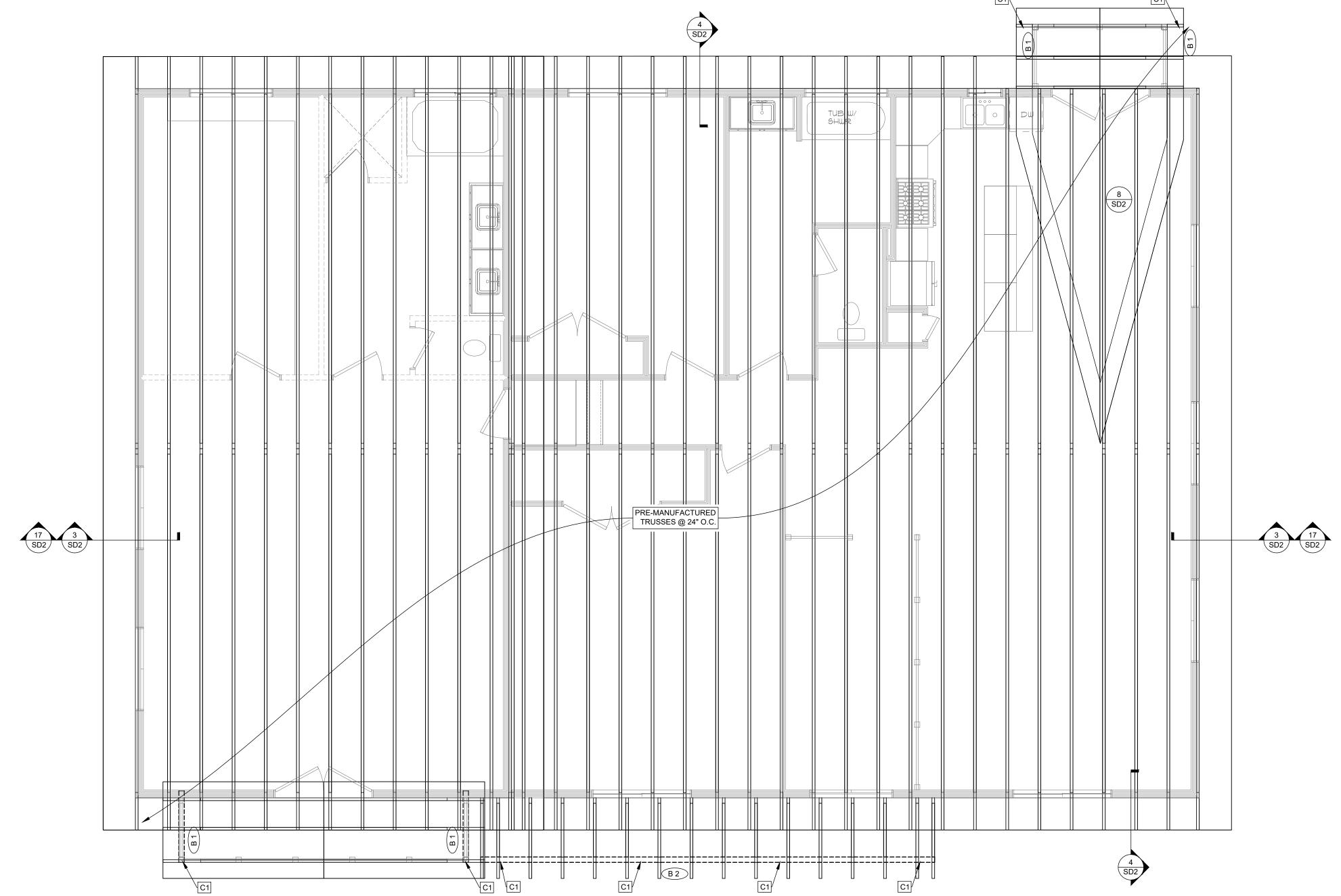
SECOND FLOOR PLAN

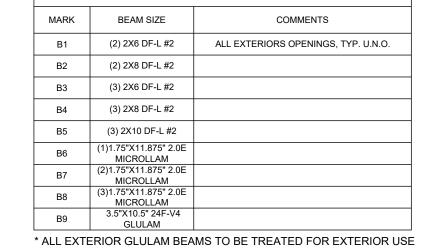
	AREAS		
	2ND FLOOR SQ. FT.	2904	
	MAIN FLOOR SQ. FT.	1899	
	BASEMENT SQ. FT.	-	
	COLD STRG. SQ. FT.	-	
	SUSP. SLAB SQ. FT.	1	
	BONUS SQ. FT.	-	
	DECK SQ. FT.	1	
	ADDITION SQ. FT.	-	
	LIVING SPACE ABV. GRADE		
	TOTAL SQ. FT.		
ì			



DRAWN BY: J.STEWART

PROJ. ENGINEER: --





BEAM SCHEDULE

XX	COLUMN SCHEDULE			
MARK	COLUMN SIZE COMMENTS			
C1	4X4 DF-L #2 USE ABU44 POST BASE AND PC4Z POST CAP			
C2	(2) 2X6 DF-L #2			

* #T = NUMBER TRIMMER STUDS #K = NUMBER OF KING STUDS 1T1K ALL FRAMED OPENINGS, TYP. U.N.O.

= POINT LOAD FROM ABOVE. PROVIDE BLOCKING OR POST TO MATCH DIMENSIONS OF POST ABOVE.

XX

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RESPONSIBILITY. (CHECK PLANS CAREFULLY

BEFORE CONSTRUCTION.)

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ODES: 2021 IRC, 2021 IMC, 2021 IFGC, 2021 IBC, 2021 IFC, & 2015 L UTAH STATE AMENDED	DRAWN BY:	J.STEWART
	PROJ. ENGINEER:	
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PROJECT #: 043

CONTRACTOR TO VERIFY ALL CONDITIONS & DIMENSIONS

SHEET SIZE:

2ND FLOOR 2904

MAIN FLOOR SQ. FT. BASEMENT

COLD STRG. SQ. FT.

SUSP. SLAB SQ. FT. BONUS SQ. FT. DECK SQ. FT. ADDITION

SQ. FT.

LIVING SPACE

TOTAL SQ. FT. --

8/1/2025

SSIONALE

08/08/2025

CHRISTOPHER

COLIN RHOADES:

No. 12072728

ABV. GRADE

ARCH D 24X36

1/4" = 1'-0"

TYPICAL U.N.O:

1. ROOF SHEATHING TO BE $\frac{7}{16}$ " W/8d NAILS @ 6 " EDGES, 12" FIELD

2. ROOF TRUSSES @ 24" O.C. BY OTHERS

ATTENTION!

CONTRACTOR TO PROVIDE DKE WITH TRUSS PACKAGE FOR APPROVAL PRIOR TO TRUSS MANUFACTURING AND INSTALLATION

ELECT. SYMBOL LEDGEND

110 YOLT OUTLET

1/2 HOT OUTLET

GROUND FAULT INTERUPTER

BUBBLE TYPE WATERPROOF
COVERED OUTLET

DEDICATED CIRCUIT

N ⊕ 220 VOLT OUTLET

-D- RECESSED CAN LIGHT.

HO WALL LIGHT FIXT.

O_{S.D.} SMOKE DETECTOR

O CARBON MONOXIDE DETECTOR

EXHAUST FAN

\$ эшітсн

\$ 3-WAY SWITCH

PH TELEPHONE JACK

TELEVISION JACK

CEILING FAN

ELECTRICAL NOTES:

 ALL SUBS SEE GENERAL NOTES PAGES.
 CONFIRM LOCATION OF TV, PHONE, & OUTLETS IN SOFFITS FOR CHRISTMAS LIGHTS WITH OWNER.

 CONFIRM LOCATION OF RECESSED CANS & CEILING FANS WITH OWNER
 PROVIDE LIGHT IN ATTIC WITH SWITCH @ ACCESS

 PROVIDE LIGHT IN ATTIC WITH SWITCH @ ACCESS
 CONFIRM WITH OWNER LOCATION OF ALL EXTERIOR LIGHTS, SPOT LIGHTS, FLOOD LIGHTS, SECURITY DEVICES & MOTION/HEAT SENSORS
 PROVIDE LIGHTING UNDER UPPER KITCHEN CABINETS

PROVIDE LIGHTING UNDER UPPER KITCHEN CABINETS
 SEE OWNER IF NEEDED

FOR BID CONFIRM ALL ELECTRICAL

TO BE TO BE

FOR BID CONFIRM ALL ELECTRICAL.SEE SECTION "E" ON GENERAL NOTES PAGES.

 120 VOLT SMOKE DETECTOR REQUIRED ON EACH FLOOR LEVEL ALL INTERCONNECTED AND LOCATED AS NOTED ON PLANS

 ALL BOXES FOR CEILING FANS MUST BE RATED FOR SUCH USE.

ADS FAULT DESCRIPTION CIRCUIT INTERPRIPTED IN ALL.

ARC FAULT PROTECTED CIRCUIT INTERRUPTER IN ALL SLEEPING BEDROOMS AT BREAKER PANEL.

PROVIDE CARBON MONOXIDE DETECTORS ON EACH

FLOOR WITH 110V POWER, INTERCONNECTED AND
BATTERY BACKUP.
PROVIDE *4 AWG OR LARGER BARE COPPER
CONDUCTOR OR STEEL REINFORCING BAR OR ROD NOT

CONDUCTOR OR STEEL REINFORCING BAR OR ROD I LESS THAN 1/2" DIA. GROUNDING ELECTRODE 20' MINIMUM LENGTH.

- OR -

PROVIDE CONNECTION FOR "UFER" GROUND TO FOOTING REBAR LOCATED NEAR

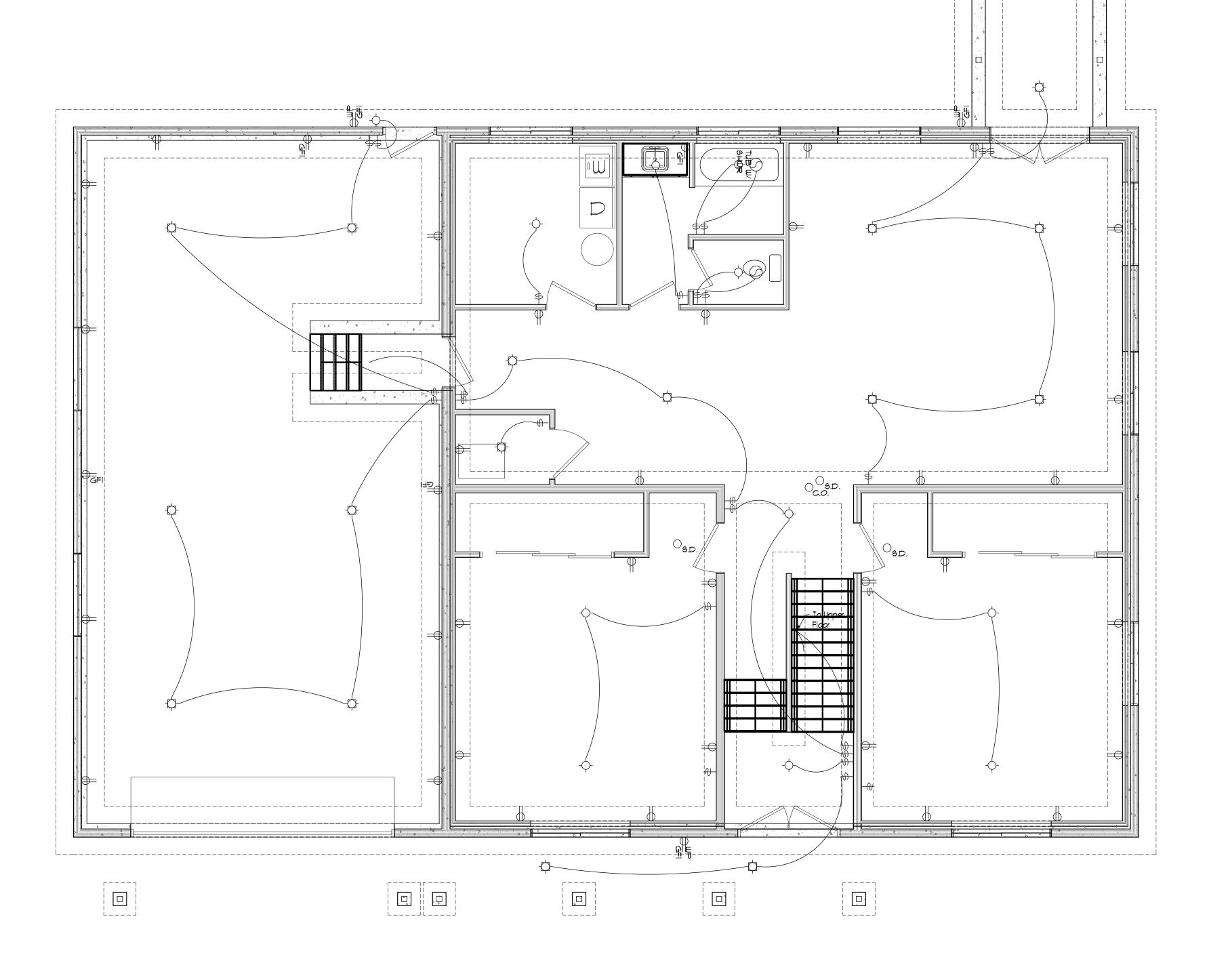
SERVICE PANEL.

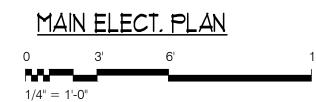
• PROVIDE BUBBLE TYPE WATERPROOF COVERED GFI OUTLET WITHIN 25' OF AC ON THE EXTERIOR.

PLASTIC ELECT. BOXES IN GAR. FIREWALL TO BE A MIN. 2 HOUR LISTING

REMODEL ELECTRICAL NOTE:

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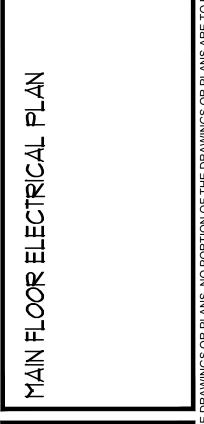






PROJECT: THOMPSON RESIDENCE ADDITION	PROJECT #:	· ·
STREET: 8230 SOUTH 1330 EAST	043	
<u>CITY:</u> SANDY, UT 84093		

CONTRACTOR TO VERIFY ALL CONDITIONS & DIMENSIONS			
SHEET SIZE: ARCH D 24X36			



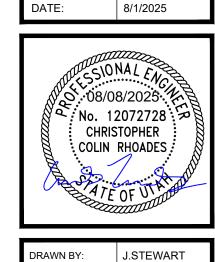
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2ND FLOOR SQ. FT.	2904	
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BASEMENT SQ. FT.	-	
COLD STRG. SQ. FT.	-	
SUSP. SLAB SQ. FT.	1	
BONUS SQ. FT.	-	
DECK SQ. FT.		
ADDITION SQ. FT.	-	
LIVING SPACE ABV. GRADE		
TOTAL SQ. FT.		

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PROJ. ENGINEER: -SHEET #

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ELECTRICAL NOTES:

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- FOR CHRISTMAS LIGHTS WITH OWNER.

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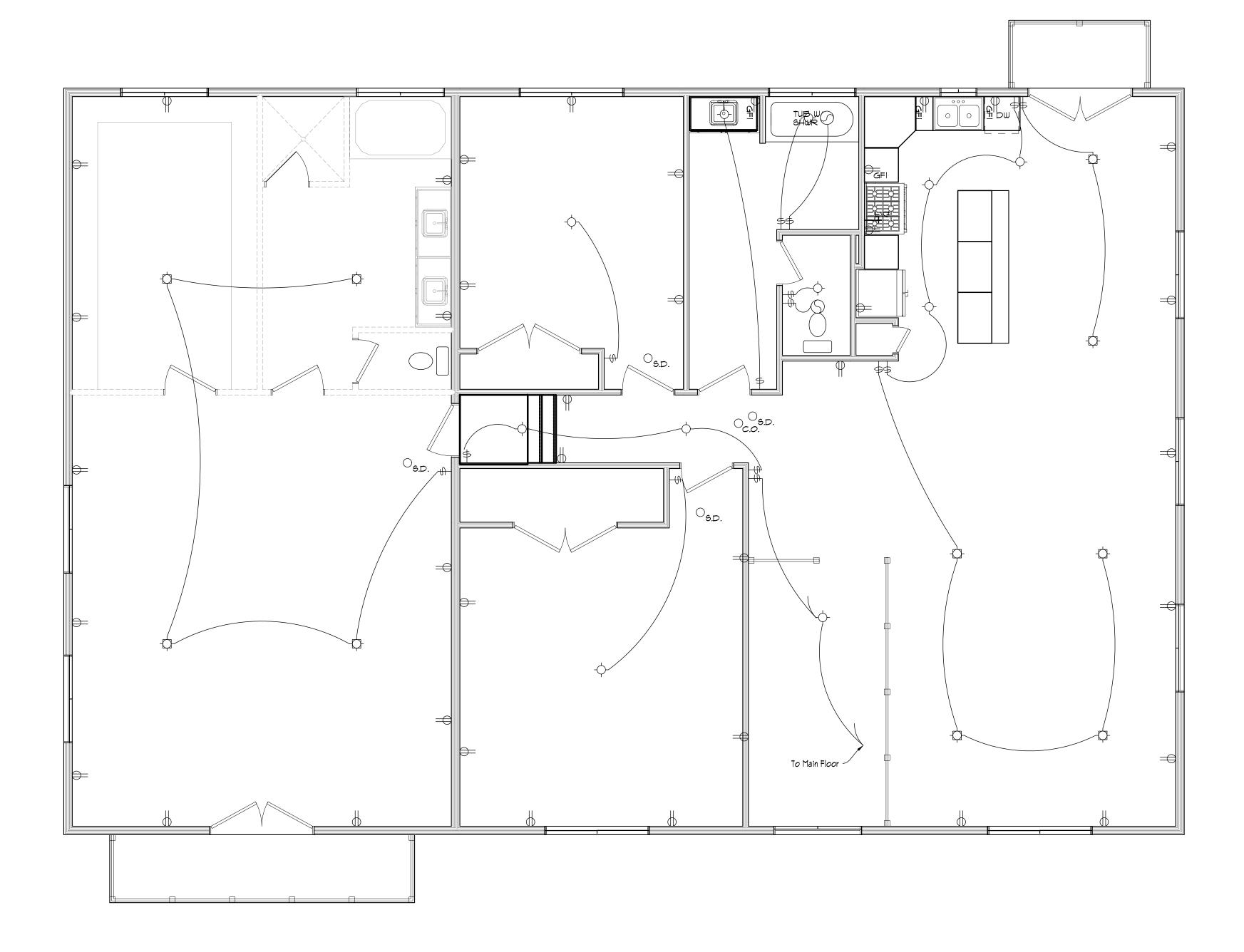
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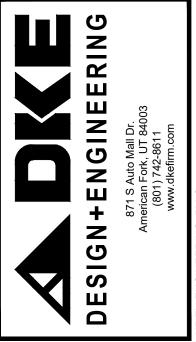
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PROJECT: THOMPSON RESIDENCE ADDITION	<u>STREET:</u> 8230 SOUTH 1330 EAST	CITY: SANDY, UT 84093	COPIED WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION OF DAVID KEIT

	TO VERIFY ALL & DIMENSIONS		
SHEET SIZE: ARCH D 24X36			

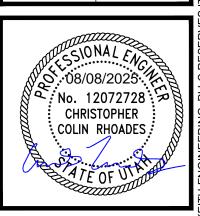
ARE	<u>EAS</u>
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TOTAL SQ. FT.	

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8/1/2025

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DRAWN BY:	J.STEWART	AVID
PROJ. ENGINEER:		

E1.1

GENERAL INFORMATION:

The following list was put together with the intent of summarizing some of the general requirements for the construction of single family dwelling and townhouse construction of three stories or less. The following information has been compiled from the 2021 International Residential Code and The Utah State Amendments to The International Codes and The National Electrical Code. The wording is not the actual wording from the code and is not intended to indicate any changes to the code. The actual code should be used for all of the exact wording, details, and requirements.

SITE PLAN NOTES:

- BUILDING LOCATION. Building Location must comply with all regulations of the city ordinances. 2. FIRE PROTECTION. Buildings closer than 5 ft. to property line shall be of 1-hr construction without doors
- 3. EAVES. Eaves, overhangs and projections cannot be less than 2 ft. from the property line and must be of 1-hr. If within 5ft. of the property line. R302.1
- 4. EASEMENTS. Buildings cannot be located on any easements or right of ways.
- 5. SITE DRAINAGE. Ground slopes may not exceed 2 units horizontal to 1 unit vertical unless retained in an approved manner. Appendix J 2015 IBC.
- 6. FOOTINGS. Footings of structure located adjacent to slopes steeper than 3 units horizontal to 1 unit vertical shall be set back from the slope at least 1/3 the height of the slope if at the top, and ½ the height of the slope if at the bottom of the slope. R403.1.7.
- 7. GRADING. Site shall be graded such that the ground slopes away from the foundation at least 6" in the first 10' of the foundation. R401.3.
- 8. RETAINING WALLS. Any retaining wall over 4 feet in height from the bottom of the footing to the top of the wall must be an approved design with engineer's details included. R404.4.
- CUTS & FILLS. Cuts or fills are not permitted within 2 feet of the property line. Appendix J 2015 IBC. 10. ROOF RUNOFF. Roof runoff shall be collected and discharged well outside of the backfill limits, and at
- least 10' from the structure or as per soils report recommendations. 11. DRIVEWAYS. Driveways shall have an all-weather driving surface. A driveway serving as an egress path shall not slope more than 1 unit vertical to 8 units horizontal. Such driveways exceeding 1 unit vertical to
- 12 units horizontal must have a handrail. 12. SOILS REPORT. If required by the building department each lot shall have a soils report from a State Licensed Engineer after excavation, the report and recommendations from the engineer must be on site
- at the time of the footing inspection. 13. WATER METER. Water meters cannot be located in driveways, approaches, sidewalks, or similar areas.
- 14. FLOOD AREAS. Homes located in potential flood areas will be required to have elevation certificates prior to and after completion of construction. R106.1.4.
- 15. ADDRESS. Addresses shall be installed which are plainly visible and legible from the street. Numbers shall be a minimum of 4" high with a minimum stroke width of ½". R319.1.

ARCHITECTURAL NOTES:

- 1. EXTERIOR WALLS AND OPENINGS: Maintain fire separation distance from property lines per R302.1. If two family dwelling or townhouse, provide fire separation party walls per R302.2. Note no openings or penetrations through party wall.
- 2. BACKER BOARD FOR WALL TILES: Provide fiber-cement, fiber-mat reinforced cement, fiber reinforced gypsum, or glass mat gypsum board backer board for wall tile in tub and shower areas, to a height not less than 6 feet above the finish floor. R702.4.2 & R307.2
- 3. MINIMUM AREA AND HEIGHTS: Min. 70 sq ft in all rooms except bathrooms. 7 ft. min. ceiling height,
- 4. GLAZING IN HAZARDOUS LOCATIONS: Tub area less than 60" above the drain, showers, within 24" of doors, within 18" of a floor, less than 36" above a stairway, or within 36" of stairway or landing. 18" if
- GARAGE SEPARATION FROM DWELLING: From the residence and attics min. ½" gypsum board, applied to the garage side. From all habitable rooms above garage min. 5/8" gypsum Type "X" gypsum board to the garage ceiling side. Doors leading from dwellings to the garage shall be 1-3/8" thick solid core or 20 minute rated door. R302.5 & R302.6
- 6. EMERGENCY ESCAPE AND RESCUE OPENINGS. Finished sill 44" maximum above floor in every bedroom, 5.7 sq. ft. of open area or 5 sq. ft. if located below grade. Sill must be within 44" of floor. 20" min. width, 24" min. height. R310.2
- 7. WINDOW WELLS AND LADDERS: An emergency escape and rescue opening with a finished sill height below the adjacent ground level shall be provided with a window well in accordance with IRC 310 and
- 8. EXIT DOORS AND HALLWAYS: One exterior door min. 32" width when in the open position door is required. 36" min. width for hallways. R311.2 and R311.6
- 9. LANDINGS AT DOORS AND STAIRWAYS: 36" min. each side of exterior doors, top and bottom of
- stairway. R311.3 and R311.7.6. 10. STAIRWAY: 36" min. width, 8" max rise and 9" min. tread, a min. headroom of 6' – 8' above tread nosing.

Handrail at 34" to 38" and 1 1/4" to 2" in diameter R311.7 and State Amendment.

- 11. GUARDRAIL: At floors, stairs, or balconies more than 30" above grade, 36" min. height and a 4" sphere shall not pass through openings. R312.1
- 12. UNDER-STAIR PROTECTION: Provide ½" gypsum board at walls, under stair surface, and any soffits of
- enclosed accessible space under stair. R302.7 13. MOISTURE VAPOR RETARDER: On the interior side of framed walls. R702.7

attic assembles comply with R806.5

- 14. LUMBER PROTECTION AGAINST DECAY: Treated wood or naturally durable wood should be used in contact with concrete or within 18" of exposed ground in crawl space. R317.1
- 15. UNDER FLOOR VENTILATION: 1 sq. ft. to 150 sq. ft. or 1 sq. ft. to 1500 sq. ft. with class 1 vapor barrier. One ventilation opening required within 3 feet of each corner of the building. R408.1
- 16. CRAWL ACCESS: Min. of 18" x 24" access R408.4 Crawl spaces containing appliances Min. 30" X 22"
- and large enough to remove appliances, not more than 20' from the appliance. M1305.1.4 17. ATTIC VENTILATION: Venting of 1 sq. ft. for every 150 sq. ft. of area to be ventilated R806.2 Provide insulation baffles to maintain a 1" air space between insulation and foot sheathing. R806.3 For Un-vented
- 18. ATTIC ACCESS: In attics that exceed 30 sq. ft. or 30" in height, a min. of 22" x 30" access opening shall be provided. R807.1
- 19. ROOF SLOPES and DRAINAGE: No shingles to be used on roof slopes below a 2:12 slope. For roofs with 2:12 to a 4:12 slope two layers of underlayment required. For slopes greater than 4:12 single layer required. R905.2.2
- 20. ICE DAM PROTECTION: In areas where ice forms along the eaves, 2 layers of underlayment cemented together, or a self-adhering polymer modified bitumen sheet to extend 24" past the heated edge of the
- exterior wall is required. R905.1.2 21. CHIMNEY TERMINATION: 2' higher than any portion of the building within 10' and 3' minimum above highest point the chimney passes through the roof. R1003.9
- 22. FACTORY BUILT CHIMNEYS AND FIREPLACES: Listed and labeled and installed according to
- manufacturers' instructions. R1005.1 23. FIREPLACE HEARTHS: 16" in front and 8" beyond each side of a firebox opening less than 6 sq. ft. If 6'

is greater, then 20" in front and 12" each side is required. R1001.10

- 24. NATURAL LIGHT & VENTILATION: All habitable rooms shall be provided with aggregate-glazing area of not less than eight percent (8%) of the floor area of such rooms, except for rooms which have artificial light capable of average illumination of 6 foot-candles at a height of 30" above floor level. An adjoining room may be considered under certain conditions of R303.1. Ventilation shall be provided through source specific and whole house ventilation systems designed and installed as specified in sections M1506 and M1507, R303.1 and R303.2.
- 25. WINDOW AND DOOR PLACEMENT: As noted on the plans, the window and door placements need to be reviewed by the owner and contractor prior to installation to ensure proper placement; center of room, exterior alignment, or other aesthetic considerations. This is especially important where changes or alterations are made to exterior and/or interior layouts.

(**E**)ELECTRICAL NOTES:

- ALL ELECTRICAL INSTALLATIONS SHALL COMPLY WITH THE 2021 IRC & 2021 NEC
- 1. ELECTRICAL SERVICE PANEL: Show the location of the sub panel. 30" clearance required side-to-side, 36" in front of panel, and 6'-6" in height from floor. E3405.
- 2. ELECTRICAL OUTLETS: Shall be installed in finished habitable rooms so that all walls, railings, and fixed wall panels which are 2 feet or more in length shall have electrical receptacles spaced within 6'-0" of all openings and not more than 12'-0" apart. Provide outlets in walls, counters, islands, floors, bathrooms, laundry rooms, basement, garage, hallways, and mechanical room. An outlet is required for every 12' of finished wall. (1) for a kitchen island, every 4' of counter tops, and a min, of 1 in the garage and unfinished basement. Kitchen countertops shall have small appliance branch circuit electrical outlets on all counters that are 12" or wider spaced along the center line of the counter top within 2'-0" of all edges and no more than 4'-0" apart. All island and peninsula counters shall have at least one such receptacle that is not placed under an overhang in excess of 0'-6". E3901
- 3. ARC FAULT PROTECTIONS: All 120-volt, single phase 12-20 amp branch circuits in dwelling unit bedrooms shall be arc fault protected. E3902.16 as Amended by the State of Utah.
- 4. GFCI OUTLETS: All outlets on the exterior of the home, all outlets in the garage, bathrooms, within 6 feet of any sink, in crawl spaces, laundry rooms, kitchen counters, a minimum of 1 outlet in an unfinished basement, and mechanical rooms are to be GFCI protected. Exterior GFCI outlets to have waterproof cover. E3902.3.
- 5. INTERIOR AND EXTERIOR LIGHTING: One wall switch controlled light in ever habitable room and bathroom. One wall switch controlled light in hallways, stairways, attached garages, and detached garages with electrical power. One wall switch controlled light to provide illumination on the exterior side of doors One light required in attics, crawl spaces, utility rooms, and basements.
- 6. RECEPTACLES AND LIGHTING IN DAMP AND WET LOCATIONS: Weatherproof covers for exterior outlets and lighting to be listed for wet or damp locations. E4001.7 and E4002.8
- 7. LIGHT FIXTURES IN CLOSETS: Surface mounted incandescent fixtures to have 12" min. between the fixtures and any storage. Surface mounted fluorescent fixtures to have 6" min. between fixtures and any storage. E4003.12
- 8. OUTLET BOXES: Boxes at luminaries or lamp holder boxes are required to be able to support a minimum (50 lbs.) or less. A luminaire that weights more than (50 lbs.) must be listed for the additional weight to be supported. E3905.7
- 9. ELECTRICAL DRAWINGS: are schematic in nature and along with the specifications set the basis for the scope of work. The electrical contractor shall be responsible for all the necessary items to make a complete and functioning electrical installation, including all permits and related costs. The electrical contractor shall be responsible to provide all electrical equipment and systems noted on the drawings, all
- as per the requirements of city or county entities and the National Electric Code. 10. EXISTING ELECTRICAL: To be evaluated for code compliance. Electrical contractor shall verify schematic with homeowner to confirm existing vs new fixtures.
- 11. BRANCH CIRCUITS: All branch circuits terminating in panels to terminate with copper conductors. 12. ELECTRICAL CONDUCTOR: Shall comply with N.E.C. Article 310. All grounds and conductors to be copper with THW insulation.
- 13. CONDUITS: Size all conduits in accordance with the National Electric Code...with no more than 40% fill.
- 14. EXHAUST FANS: Bathroom exhaust fans shall provide 5 changes of air per hour. Locations specified on

15. BATHROOM RECEPTACLE OUTLETS: Shall be supplied by a dedicated 20-amp circuit.

(F) FIRE PROTECTION & CO2 ALARMS NOTES:

- 1. SMOKE DETECTORS: Inside each sleeping room, outside each separate sleeping area and each additional story including basements. All detectors to be interconnected, hardwired and listed and labeled.
- 2. CARBON MONOXIDE ALARMS: For new construction detectors shall be installed on each habitable level of the home that has fuel burning appliances or an attached garage. R315.3 as Amended by the State of

(G) ENERGY CONSERVATION NOTES:

- 1. INSULATION VALUES: Provide insulation values per the prescriptive requirements of the 2015 International Energy Conservation Code (Utah State Amendment). R-19 In walls, R-38 in Ceiling, R-30 for floors over unconditioned space, window U value of .35 or better.
- 2. ENERGY REPORT: If the prescriptive requirements are not used a passing energy study (ResCheck) is required per the 2015 International Energy Conservation Code.
- 3. MECHANICAL: All mechanical installations shall comply with the 2015 IRC & 2018 IFGC 4. REQUIRED HEATING: Heating equipment to maintain 68 degrees R303.10. Provide heat load
- calculations per Manual J M1401.3, and ductwork design information per Manual D M1601.1 5. FURNACE CLEARANCE AND ACCESS: A required 3" min. on the side and rear, 12" wider than furnace. 30" in front of furnace, or 6" min. if a door in front. 30" x 30" access platform with light for servicing.
- 6. ELEVATION OF COMBUSTION SOURCE: All gas appliances in a garage to be elevated such that the ignition source is 18" min above floor. M1307.3
- 7. APPLIANCE PROTECTION: Gas appliances located in a garage or carport are to be protected from vehicle impact. M1307.3.1.
- 8. CONDENSATE DISPOSAL: Condensate from all cooling coils or evaporators shall drain to be approved
- location. When damage to the building can occur provide a second drain system. M1411.3 9. COMBUSTION AIR: Provide combustion air to appliances in accordance with G2407. Combustion air shall not be taken from a sleeping room bathroom, or toilet room, or where flammable vapors are present.(see note AC on sheet SN)
- 10. WATER HEATERS: To be installed with (2) approved seismic straps in upper and lower $\frac{1}{3}$ of water heater per P2801.8. If located on a wood floor provide a drainage pan. Note the use of a pressure relief valve
- and seismic restraints. M2005. Provide thermal expansion control. P2904 11. BTU'S: Provide the BTU's of all gas appliances being used in the home, i.e.: furnace, water heater, dryer, kitchen stove and oven, outside BBQ, etc.
- 12. CLOTHES DRYER VENT: 35' maximum length M1502.4.5 and State Amendment. 5' reduction for each 90 degree, 2'-6" reduction for each 45 degree bends Table M1502.4.5.1. Termination is 3' from any opening, M1502.3
- 13. EXHAUST VENT TERMINATIONS: 4' below or to the side, and 1' above doors and windows. 12" min. above finished grade. M1804.2.6
- 14. SHOWER SIZE AND DOOR: 900 sq. inches and 30" min dimension, 70" tall above the shower drain. Hinged door is required to swing outward. P2708.1. The shower compartment access and egress opening shall have a min. unobstructed finished width of 22". P2708.1.1 (see detail G on sheet SN)
- 15. ICBO Approved Direct vent furnace. install per manufacturer instructions

(H)FIREPLACE & GAS APPLIANCES NOTES:

- 1. Fireplaces must be installed in rooms with proper size to allow proper combustion. Any fireplace installed in any sleeping room must have outside combustion air to firebox and a shut off valve within 4' of box. 2. Gas fireplaces to be F.M.I. # 3507 U.N.O. or equal. See builder.
- 3. Fire block stud spaces at soffits, floor and ceiling joist lines, at ten feet vertically and horizontally and at openings between attic spaces and chimney chases for factory built chimneys and at any other locations not specifically mentioned above that could afford passage for flames.
- 4. Provide one combustion air duct for all gas appliance at a rate of 1 square inch per 3000 BTU's combustion air shall be obtained for outdoors installed within 12" of ceiling. Combustion air duct louvers shall be deemed to have a net free area of 75%. Gas logs shall be provided with a shut-off valve located outside of the firebox and within six feet of the appliance
- 5. Combustible material shall not be placed within two inches of fireplace, smoke chamber or chimney walls. Combustible material shall not be placed within six inches of the fireplace opening. No such combustible material within twelve inches of the fireplace opening shall project more that one-eighth inch for one inch clearance from such opening.

(**P**)PLUMBING NOTES:

- ALL PLUMBING INSTALLATIONS SHALL COMPLY WITH 2021 IRC AND ALL STATE AND LOCAL CODES 1. CLEARANCES FOR PLUMBING FIXTURES: 24" in front of shower, 30" width for the water closet, 21" in front of cabinets and water closet. R307
- 2. WHIRLPOOL BATHTUB ACCESS PANEL: Show the location for access to the motor(12"x12" minimum). Show a GFCI outlet for the motor. P2720
- 3. HOSE BIB CONNECTIONS: Are to be equipped with an accessible stop-and-waste valve except where
- stem extends through building insulation in heated or semi-conditioned space. P2903.10
- 4. Where local water pressure is in excess of eighty (80) pounds per sq. inch, an approved type pressure regulator preceded by an adequate strainer shall be installed.
- 5. MAXIMUM FLOW RATES: Lavatory or sink faucet is 1.75 GPM, showerhead is 2.5 GPM, and water closets are 1.6 GPM. P2903.2 6. WARRANTY: The plumbing contractor shall be responsible for the complete plumbing system installation
- and shall provide a one (1) year parts and labor warranty. 7. EXISTING UTILITIES: Verify the locations of existing waste and water utilities and make the necessary
- connections as required. 8. EXISTING CONDITIONS: Visit the jobsite prior to bidding the project to become familiar with the existing
- conditions and any interferences. 9. FEES AND PERMITS: It is the owner/contractor's responsibility to pay all fees and permits relating to the
- plumbing system installation, including utility connection fees, water meter, and underground gas line.
- 10. GOVERNING AUTHORITIES: Coordinate the installation and comply with the requirements of the governing authorities having jurisdiction for this project.
- 11. TESTING: All plumbing shall be left uncovered and unconcealed until it has been tested or approved. The plumbing contractor shall employ and pay for services of a qualified independent organization to perform testing, adjusting and balancing of the plumbing systems, as required.
- 12. GAS OUTLET: Every gas outlet shall have an individual shut-off valve. The shut-off valve shall be in the same room as the appliance served, outside the firebox and within 6'-0" of the appliance served.
- 13. POTABLE HOT WATER: All potable hot water systems shall be provided with a means of control for thermal expansion of the water. This may be an expansion tank or other approved mechanism or
- pressure release or control. 14. WATER PIPING OR DRAINAGE TRAPS: None shall be placed in walls which are re-exposed to outside air.Individually insulate all plumbing, water, drain lines in areas subject to freezing. exterior wall, attic crawl
- 15. HOSE BIBS: Shall be protected from freezing and have backflow preventions devices provided.
- 16. SHOWER AND TUB MIXING VALVES: Shall have balanced pressure or thermostatic valves, or valves that can be field adjusted in accordance with the manufacturer's instructions to a maximum hot water
- 17. PLUMBING VENTS: Shall terminate at least 2'-0" above or 10'-0" away from any operable window or air intake opening. Flagpole of plumbing vents is prohibited except where roof is occupied.
- 18. CONCEALED SLIP JOINT FIXTURE CONNECTIONS: Shall be provided with an access panel to the utility area, which has a minimum dimension of 12". the access panel is not required when the joints re
- made by screwing, soldering or solvent cementing to make solid connection. 19. ANTI-SCALD DEVICES: To be installed for all faucets, tub fillers, and showerheads.
- 20. WATER HEATER: ICBO Approved direct vent Water Heater. Include pressure release valve, P2904. Install per manufacturers recommendation. To be fitted with hurricane straps located within the top and bottom third of the tank, M2005. If located on wood floor water heater shall have a safe pan & min. 1.5" diameter drain to an approved location. Provide outside combustion air supply to water heater. (see note
- 21. WASHER PAN: Provide overflow washer pan; to be connected to a drain line and provided a drain trap.

(S) STAIR SECTION NOTES:

- Stair headroom-minimum 6'-8" at all places at any point. R311.7.2
- 2. Stair treads- maximum 8" rise, minimum 9" run. R311.7.5
- 3. Tread variation- maximum $\frac{3}{8}$ " on treads and/or risers in any stair run. R311.7.5 4. Stair width- minimum 36" wide. R311.7.1
- 5. Landings for stairways minimum 36" x 36" landings required at (R311.7.6):
- a. All exterior doors (except from house into garage) at top of steps
- b. Bottom of all interior stairways: Top of interior stairways except where door does not swing over stairs.
- 7. Winding stairs- minimum 6" tread at narrowest (smallest) point is required on winding stairways.
- 8. Stairway fire protection- 1/2" gypsum board required on stair soffits, nail maximum 8" o.c. into all 3 stair
- stringers. R302.7 9. Handrails required when there are 4 or more risers. R311.7.8
- 10. Handrails shape- 1-1/4" 2 5/8" dia., or equivalent gripping surface. R311.7.8.3
- 11. Mounting height- 34"-38" high, measured vertically above tread nosing, to top of railing. R311.7.8.1 12. Handrail continuity- continuous, returned at ends to wall, newel post, or safety terminal. handrails shall be continuous the full length of the stairs from a point directly above the top riser to a point directly above the
- 13. Guardrails required on open sides of stairs, landings, and platforms more than 30" above grade or floor
- 14. Height- minimum 36" high to top of guardrail. R312.1.2
- 15. Design pattern- baluster spacing so a 4" sphere cannot pass through at any guardrails with handrails-
- when combined with handrail on open side of stairs, guardrails may be built to handrail height. R312.1.3 16. For support posts: The structural integrity of the railing depends heavily on the posts that support the rail structure. These posts should be no farther apart than six feet on the flat deck and no farther apart than 5 1/2 feet on stairs. The local building department may require closer post spacing for added rail strength. Local codes may dictate the method you use to attach the posts to the deck. When the rail is complete.
- the top of the rail should withstand 200 pounds of pressure from any direction. 17. For bottom rail: some balusters connect to the decking, while others connect to a bottom rail. When using a bottom rail, make sure it does not sit more than four inches above the deck surface.

PROJECT #: 043

CONTRACTOR TO VERIFY ALI CONDITIONS & DIMENSIONS ARCH D 24X36 SHEET SIZE:

<u>AREAS</u> 2ND FLOOR 2904 MAIN FLOOR SQ. FT. BASEMENT COLD STRG. SQ. FT. SUSP. SLAB SQ. FT. BONUS SQ. FT. DECK ADDITION SQ. FT. IVING SPACE ABV. GRADE OTAL SQ. FT.

8/1/2025

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STATE BUILDING CODES: 2021 IRC, 2021 IMC, 2021 IPC, 2020 NEC, 2021 IFGC, 2021 IBC, 2021 IFC, & 2015 IECC (MEC) AND ALL UTAH STATE AMENDED

ANY CODE OR TOWN ORDINANCE.

ATTENTION!

THE GREATEST EFFORT HAS BEEN MADE TO DRAW THESE PLANS WITHOUT ERROR, (HOWEVER) THERE IS NO GUARANTEE THAT THESE PLANS ARE WITHOUT ERROR, THE DESIGNER & DRAFTSMAN ARE TO BE HELD HARMLESS OF ANY FINANCIAL LIABILITY RESULTING FROM ERRORS IN THESE PLANS. ANY ONE USING THESE PLANS FOR CONSTRUCTION OF BUILDING, ACCEPTS FULL RESPONSIBILITY. (CHECK PLANS CAREFULLY BEFORE CONSTRUCTION.)

SIONALE 0.08/08/2025 **1** No. 12072728 CHRISTOPHER COLIN RHOADES :

J.STEWART

SHEET#

RAWN BY:

ROJ. ENGINEER: -

GENERAL STRUCTURAL NOTES

GENERAL

- SIMILAR SITUATIONS ELSEWHERE UNLESS NOTED OR SHOWN OTHERWISE. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES. GENERAL NOTES SHALL TAKE PRECEDENCE OVER THE
- SPECIFICATIONS. REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE STRUCTURAL
- SEE THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, DOORS, WINDOWS, NON-BEARING INTERIOR AND EXTERIOR WALLS, ELEVATIONS, SLOPES, STAIRS, CURBS, DRAINS, RECESSES, DEPRESSIONS, RAILINGS, WATERPROOFING, FINISHES, CHAMFERS, KERFS, ETC.
- ALL DESIGN, CONSTRUCTION, AND INSPECTION SHALL CONFORM WITH THE 2021 INTERNATIONAL BUILDING CODE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.
- THE CONTRACTOR SHALL BRING ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
- THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS; THIS MEANS THAT DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE INFORMATION CONTAINED IN THE ARCHITECTURAL OR OTHER CONSULTANTS' DRAWINGS. THE STRUCTURAL DRAWINGS MAY NOT SHOW ALL DIMENSIONS, SLOPES, ELEVATIONS, DEPRESSIONS, MECHANICAL HOUSEKEEPING PADS, ETC. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL OR OTHER CONSULTANTS' DRAWINGS. THE CONTRACTOR SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED
- DRAWINGS INDICATE THE FINISHED PRODUCT. THEY DO NOT INDICATE A METHOD OF CONSTRUCTION. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH
- PRECAUTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE OWNER FOR ANY CHANGES MADE AS A RESULT OF A DEVIATION FROM THE CONTRACT DOCUMENTS, DEVIATION FROM THE SPECIFICATIONS, FAULTY MATERIALS, OR
- OPTIONS ARE FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED DESIGN CHANGES. COST ASSOCIATED WITH ANY DESIGN WORK INITIATED BY THE
- OPTION, THE CONTRACTOR SHALL BEAR SUCH COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION WITHIN AND ADJACENT TO THE JOB SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL OSHA REQUIREMENTS. THE ENGINEER OF RECORD DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS
- TEMPORARY SHORING AND BRACING. THE ABOVE SHALL BE PROVIDED WHEREVER NECESSARY TO SUPPORT ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING WIND AND SOIL LOADS. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY OR UNTIL ALL STRUCTURAL ELEMENTS ARE COMPLETE. DURING AND AFTER CONSTRUCTION, THE CONTRACTOR OR OWNER SHALL KEEP LOADS ON THE STRUCTURE WITHIN
- THE LIMITS OF THE DESIGN LOADS. THE GENERAL CONTRACTOR SHALL HAVE SHOP DRAWINGS REVIEWED BY THE ARCHITECT AND STRUCTURAL ENGINEER BEFORE THE FABRICATION OR ERECTION FOR THE FOLLOWING ITEMS: CONCRETE MIX DESIGN.
- REINFORCING STEEL, STRUCTURAL STEEL, PREFABRICATED WOOD JOISTS, PREFABRICATED STEEL JOISTS, PREFABRICATED WOOD TRUSSES AND GLU-LAM BEAMS. OBSERVATION VISITS TO THE JOB SITE BY FIELD REPRESENTATIVES OF DKE ENGINEERING SHALL NEITHER BE
- INTERPRETED AS INSPECTION NOR APPROVAL OF CONSTRUCTION. SIZES, LOCATIONS, AND ANCHORAGES OF EQUIPMENT SHALL BE VERIFIED IN THE FIELD WITH EQUIPMENT
- MANUFACTURERS (SUPPLIERS) BEFORE PLACING CONCRETE OR FABRICATING STEEL. THERMAL OR MOISTURE PROTECTION, FURNISHINGS, DOORS, WINDOWS, EQUIPMENT, MECHANICAL, ELECTRICAL.
- FINISHES, SIDING, PANELING, AND VENEERS ARE NOT PART OF THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER. NO CHANGES TO THESE CONTRACT DRAWINGS MAY BE MADE ONLY BY AN AUTHORIZED REPRESENTATIVE OF THE ENGINEER OR ARCHITECT. THE ARCHITECT OR ENGINEER SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR ANY CLAIMS ARISING DIRECTLY OR INDIRECTLY FROM CHANGES MADE WITHOUT WRITTEN AUTHORIZATION BY AN AUTHORIZED REPRESENTATIVE.

STRUCTURAL DESIGN CRITERIA

RISK	DING CODE CCATEGORY:	2021 IBC II
BENERAL NOTES	DEAD LOAD: DECK BEAMS & COLUMNS GROUND SNOW LOAD: FLAT ROOF SNOW LOAD: SNOW EXPOSURE FACTOR: SNOW IMPORTANCE FACTOR: THERMAL FACTOR: RAIN INTENSITY: D LOAD: BASIC WIND SPEED: IBC WIND SPEED CONVERSION, 1609.3.1 IMPORTANCE FACTOR: WIND EXPOSURE: INTERNAL PRESSURE COEFF: COMPONENT AND CLADDING PRESSURE: SMIC: PROCEDURE: SITE CLASS: IMPORTANCE FACTOR: SEISMIC DESIGN CATEGORY: SPECTRAL RESPONSE ACCELERATIONS: SPECTRAL RESPONSE COEF: BASIC SEISMIC-FORCE-RESISTING SYSTEM: LIGHT FRAME WOOD STUD WALLS R=6.5 Ω_0 =2.5 C_D =4 C_S =0.176	DL = 15 PSF SELF LOADING P_G = 35 PSF P_F = 27 PSF C_E = 1.0 I_S = 1.0 C_T = 1.1 I = 1.70 IN/HR $V = 115 \text{ MPH (3 SEC GUST)}$ $V_{ASD} = V * \sqrt{0.6} = 89 \text{ MPH}$ $I_W = 1.0$ C $GC_{PI} = 0.18(\pm)$ $P = \text{ SEE TABLE BELOW}$ $EQUIVALENT LATERAL FORCE$ $D (DEFAULT)$ $I_E = 1.0$ D $S_S = 1.43$ $S_1 = 0.511$ $S_{DS} = 1.144$ $S_{D1} = 0.609$

COMPONENTS AND CLADDING WIND PRESSURES (PSF)										
ULTIMATE DESIGN LOADS										
TRIBUTARY AREA	TYPICAL C	ONDITIONS	CORNER CONDITIONS							
	POSITIVE PRESSURE	NEGATIVE PRESSURE	POSITIVE PRESSURE	NEGATIVE PRESSURE						
10 SF	+30 PSF	-32 PSF	+30 PSF	-40 PSF						
50 SF	+27 PSF	-29 PSF	+27 PSF	-34 PSF						
100 SF	+25 PSF	-28 PSF	+25 PSF	-31 PSF						
500 SF	+22 PSF	-25 PSF	+22 PSF	-25 PSF						

ALL OTHER WALLS NOT LABELED TO FOLLOW WALL REINFORCEMENT TABLE

SOIL BEARING PRESSURE: SUITABLE NATIVE SOIL FROST PROTECTION: 1,500 PSF, ASSUMED FROM IBC 2021 TABLE 1806.2

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EARTHWORK

- ALL DETAILS, SECTIONS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO 1. FOOTINGS SHALL BEAR UPON FIRM UNDISTURBED NATURAL SOILS AND/OR UPON STRUCTURAL FILL EXTENDING TO FIRM UNDISTURBED NATURAL SOILS.
 - WHERE REQUIRED, THE WIDTH OF STRUCTURAL FILL BELOW FOOTINGS SHALL BE EQUAL TO THE WIDTH OF THE FOOTINGS PLUS ONE FOOT FOR EACH FOOT OF FILL THICKNESS, AND SHALL BE SCRAPED TO THE DEPTH NECESSARY (4" MINIMUM) TO REMOVE ALL VEGETATION, TOPSOIL, LOOSE/DISTURBED SURFICIAL SOILS, DEBRIS, UNDOCUMENTED FILLS. AND ANY OTHER DELETERIOUS MATERIALS.
 - THE NATURAL UNDISTURBED SOIL BELOW ALL FOOTINGS SHALL BE PROOF ROLLED PRIOR TO PLACING CONCRETE TO CHECK FOR THE PRESENCE OF UNSUITABLE FILLS. SOFT SPOTS, OR OTHER UNDESIRABLE MATERIALS OR CONDITIONS. REMOVE SUB-GRADE MATERIALS THAT ARE UNSUITABLE AND REPLACE WITH COMPACTED STRUCTURAL
 - 4. THE SUBGRADE SHALL BE SCARIFIED AND COMPACTED TO THE REQUIREMENTS OF STRUCTURAL FILL. IF SOFT OR LOOSE AREAS ARE ENCOUNTERED DURING THE SCARIFYING AND COMPACTION PROCESS THEY MUST BE COMPLETELY REMOVED AND REPLACED WITH STRUCTURAL FILL
 - ALL STRUCTURAL FILL, WHERE REQUIRED, SHALL EXTEND TO SUITABLE NATURAL SOILS. THE FILL MATERIAL SHALL BE A WELL-GRADED GRANULAR MATERIAL WITH A MAXIMUM SIZE LESS THAN 4" AND NOT MORE THAN 35% PASSING A #200 SIEVE. IT SHALL BE COMPACTED TO 95% OF THE MAXIMUM LABORATORY DENSITY AS DETERMINED BY ASTM D 1557. ALL FILL SHALL BE TESTED. COMPACTED STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8" IN UNCOMPACTED THICKNESS.
 - FLOOR SLABS THICKNESSES SHALL BE AS INDICATED IN THE DRAWINGS AND UNDERLAIN BY A GRANULAR LAYER OF THICKNESS INDICATED IN THE DRAWINGS AND AT LEAST 4" THICK. THE GRANULAR FILL SHALL BE FREE-DRAINING FILL SUCH AS "PEA" GRAVEL OR THREE-QUARTERS- TO ONE-INCH MINUS CLEAN GAP-GRADED GRAVEL WITH NOT MORE THAN 5% PASSING A #200 SIEVE AND SHALL BE COMPACTED TO AT LEAST 90% OF THE MAXIMUM LABORATORY DENSITY AS DETERMINED BY ASTM D 1557.
 - CONSULT THE PROJECT SPECIFICATIONS AND SOIL REPORT FOR FURTHER EARTHWORK REQUIREMENTS. THE SOILS ENGINEER SHALL REVIEW ALL EXCAVATIONS AND FILL PLACEMENT PRIOR TO PLACING CONCRETE.
 - 8. SITE PREPARATION, PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE OBSERVED AND TESTED BY OWNER'S TESTING LABORATORY TO ENSURE THAT THE ABOVE REQUIREMENTS ARE ACHIEVED.

- ALL FOOTINGS SHALL BEAR ON UNDISTURBED EARTH OR ON 2'-0" MINIMUM OF ENGINEERED FILL DOWN TO UNDISTURBED EARTH COMPACTED TO 95% OF MAXIMUM RELATIVE DENSITY BASED ON ASTM D1557. SUCH FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 4" IN DEPTH BEFORE COMPACTION AND EXTEND DOWN TO IN-SITU GRANULAR SOILS. UNLESS NOTED OTHERWISE, FOLLOW ALL RECOMMENDATIONS IN THE SOIL REPORT FOOTING ELEVATIONS SHOWN ON THE PLAN ARE TOP OF FOOTINGS AND ARE MINIMUM DEPTH. THE CONTRACTOR
- SHALL REPORT ANY DIFFERENT OR UNUSUAL CONDITIONS TO THE ARCHITECT AND ENGINEER.
- EXTERIOR WALL FOOTINGS SHALL BEAR AT A MINIMUM DEPTH OF 3'-0" BELOW FINISHED EXTERIOR GRADE. NO FOOTINGS SHALL BE PLACED IN WATER OR ON FROZEN GROUND.
- ANY SOIL CONDITION ENCOUNTERED DURING EXCAVATION THAT IS CONTRARY TO THE CONDITIONS USED FOR THE DESIGN OF FOOTINGS AS OUTLINED IN THE SOIL REPORT LISTED BELOW OR ON THE DRAWINGS SHALL BE BROUGHT
- TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING. DO NOT BACKFILL BEHIND FOUNDATION WALLS UNTIL THE FLOOR OR ROOF DIAPHRAGM IS COMPLETED AT THE TOP OF THE FOUNDATION WALL, AND BOTTOM SLABS HAVE BEEN POURED AND ATTAINED THEIR DESIGN STRENGTHS UNLESS NOTED OTHERWISE
- WALL FOOTINGS, WHERE NOT SHOWN OTHERWISE, SHALL BE 12" THICK WITH A 9" SPREAD ON EACH SIDE OF THE WALL AND PROVIDED WITH (1) #5 X CONTINUOUS AT BOTTOM FOR EACH 8" OF FOOTING WIDTH.
- WHERE A PIPE PASSES THROUGH AN INTERIOR OR EXTERIOR FOUNDATION WALL, STEP THE FOOTING DOWN TO PASS BELOW THE PIPE AND THEN STEP BACK UP TO INDICATED ELEVATION. PROVIDE PIPE SLEEVE THROUGH FOUNDATION
- ALL FOOTING EXCAVATIONS SHALL BE EXAMINED BY A LICENSED GEOTECHNICAL ENGINEER FOR VERIFICATION OF ADEQUATE BEARING CONDITIONS BEFORE PLACING CONCRETE.

CONCRETE ANCHORS

- ANCHOR BOLTS ARE DEFINED AS BOLTS TO CONNECT THE SILL PLATES OF WALLS TO THE CONCRETE BELOW ANCHOR RODS ARE DEFINED AS BOLTS EMBEDDED OR THREADED RODS EMBEDDED OR EPOXIED INTO THE
- CONCRETE TO WHICH HOLDOWNS ARE CONNECTED. WOOD PLATES OR SILLS SHALL BE BOLTED TO THE FOUNDATION OR FOUNDATION WALL. STEEL BOLTS SHALL HAVE A MINIMUM NOMINAL DIAMETER OF \S " UNLESS NOTED OTHERWISE. BOLTS SHALL BE EMBEDDED 7" MINIMUM INTO THE CONCRETE OR MASONRY AND SHALL BE SPACED NOT MORE THAN 32 INCHES APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES OR LESS THAN SEVEN BOLT DIAMETERS FROM EACH END OF THE PIECE. A PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED ON EACH BOLT TO THE PLATE. FOR SEISMIC DESIGN CATEGORIES D-F, WASHERS SHALL BE A MINIMUM OF 1/4" THICK BY 3" SQUARE PLATE WASHERS (REFER TO "BASIS FOR DESIGN/SEISMIC DESIGN" THIS SHEET FOR SEISMIC DESIGN CATEGORY) AT
- EXTERIOR WALLS, SHEAR WALLS, AND INTERIOR BEARING WALLS WHERE 2x SILL PLATES ARE SPECIFIED. FOUNDATION PLATES AND SILLS SHALL BE THE KIND OF WOOD SPECIFIED IN SECTION 2304.11.2.3 OF THE 2021 IBC ANCHORS SHALL BE ASTM F1554 GR 36 (UNLESS NOTED OTHERWISE IN DRAWINGS) WITH DIAMETER INDICATED, THREADED AND GALVANIZED.
- 5. ALL SHEARWALLS SHALL BE ANCHORED TO THE CONCRETE PER THE SHEARWALL SCHEDULE AND/OR DETAILS. 6. WHERE EXTERIOR WALL EMBEDDED ANCHOR BOLTS HAVE BEEN MISSED, DAMAGED OR MISLOCATED, ONE OF THE FOLLOWING RETROFIT OPTIONS MAY BE USED AT THE CONTRACTORS DISCRETION
- 6.1. % " DIAMETER EXPANSION BOLTS, PROVIDE (2) % " DIAMETER EXPANSION ANCHORS FOR EACH ½" DIAMETER EMBEDDED ANCHOR BOLT. EXPANSION ANCHORS SHALL BE INSTALLED NOT CLOSER THAN 61/2" O.C. AND SHALL BE INSTALLED WITH A MINIMUM OF 4 1/8 " EMBEDMENT AND SPACED 11/4" FROM THE EDGE OF THE SLAB. EXPANSION ANCHORS SHALL BE INSTALLED PER POPST-INSTALLED ANCHORS, THIS SHEET. SUBSTITUTIONS SHALL ONLY BE WITH THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
- EPOXY BOLTS OF THE SAME DIAMETER AND SPACING MAY BE USED IN LIEU OF THE EMBEDDED BOLTS. A 7" MINIMUM EMBEDMENT SHALL BE PROVIDED FOR EPOXY GROUTED BOLTS. USE EPOXY AS INDICATED IN THE POST-INSTALLED ANCHORS. USE CARE AND CAUTION TO NOT DAMAGE ANY STEEL REINFORCEMENT IN CONCRETE, EITHER REINFORCEMENT BARS OR PT CABLES
- WHERE INTERIOR ANCHOR BOLTS HAVE BEEN MISSED, DAMAGED OR MISLOCATED, ONE OF THE FOLLOWING RETROFIT OPTIONS MAY BE USED AT THE CONTRACTORS DISCRETION. INTERIOR ANCHOR BOLTS ARE DEFINED AS ANCHOR BOLTS THAT ARE LOCATED A MINIMUM OF 6 INCHES FROM SLAB EDGES, STEPS, TURN DOWNS, OPENINGS,
- 7.1. EXPANSION BOLTS OF EQUAL OR GREATER DIAMETER SHALL BE INSTALLED PER THE MANUFACTURER. THE BOLTS SHALL PER THE POST INSTALLED ANCHORS, THIS SHEET. EQUIVALENT EXPANSION BOLTS USED SHALL HAVE EQUAL OR GREATER SHEAR AND PULLOUT VALUES AT EQUAL EMBEDMENT DEPTHS TO THOSE SPECIFIED ABOVE. THE EXPANSION BOLTS SHALL HAVE MINIMUM EMBEDMENT DEPTHS PER THE FOLLOWING:
- EPOXY BOLTS OF THE SAME DIAMETER AND SPACING MAY BE USED IN LIEU OF THE EMBEDDED BOLTS. A 7" MINIMUM EMBEDMENT SHALL BE PROVIDED FOR EPOXY GROUTED BOLTS. USE CARE AND CAUTION TO NOT DAMAGE ANY STEEL REINFORCEMENT IN CONCRETE. EITHER REINFORCEMENT BARS OR PT CABLES. SHOT PINS MAY BE USED HILTI OR ANY OTHER ICC APPROVED POWDER DRIVEN FASTENER WITH AT LEAST 200
- POUNDS ALLOWABLE SHEAR RESISTANCE IN 2000 PSI CONCRETE. INSTALL ALL FASTENERS PER ICC REPORT AND MANUFACTURERS RECOMMENDATIONS. EMBEDMENT SHALL BE 11/4" MINIMUM AND THE SHOT PINS SHALL BE INSTALLED SUCH THAT THE SILL PLATE WOOD DOES NOT SPLIT. IF SPLITTING OCCURS, EQUIVALENT EXPANSION BOLTS SHALL BE INSTALLED PER THE REQUIREMENTS ABOVE.
- INTERIOR NON-SHEAR LOADED PARTITION WALLS MAY BE ANCHORED TO THE SLAB WITH A MINIMUM 0.140 INCH DIAMETER SHOT PINS AT 32" O.C. MAXIMUM SPACING.

TYPICAL CONCRETE SLAB ON GRADE

4" CONCRETE SLAB PLACED OVER 2" WET SAND, VAPOR BARRIER. 4" OF GRAVEL OVER COMPACTED EARTH PAD. REINFORCE CONC. SLAB WITH #4 BARS PLACED AT 18" OC AT MID-DEPTH OF SLAB

CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS:

CONCRETE USE	EXPOSURE CLASSIFICATIONS				CEMENT TYPE	MIN F _c (PSI)	(MAX) W/C RATIO	(MAX) FLAYASH PERCENT	(MAX) AIR CONTENT PERCENT	(MAX) AGG SIZE	(MAX) SLUMP	
	F	s	W	С			IXATIO	LINOLINI	FLIXCLINI	SIZL		
INTERIOR FOOTINGS	F0	S0	WO	C0	1/11	3000	0.50	30	2	1"	5.00"	
EXTERIOR FOOTINGS	F2	S0	WO	C1	1/11	3000	0.50	30	6	1"	5.00"	
INTERIOR SLABS ON GRADE	F0	S0	WO	C0	1/11	3500	0.50	30	2	3" 4	5.00"	
INTERIOR WALLS	F0	S0	W0	C0	1/11	4000	0.50	30	2	<u>3</u> " 4	5.00"	
EXTERIOR WALLS ABOVE GRADE	F1	S0	W0	C1	1/11	4000	0.50	30	5	<u>3</u> " 4	5.00"	
EXTERIOR WALLS BELOW GRADE	F2	S0	W0	C1	1/11	4000	0.50	30	6	<u>3</u> " 4	5.00"	
INTERIOR COLUMNS	F0	S0	W0	C0	1/11	4000	0.50	30	2	<u>3</u> " 4	5.00"	
EXTERIOR PIERS	F2	S0	W0	C1	1/11	4000	0.50	30	6	<u>3</u> " 4	5.00"	
BEAMS & SUSPENDED SLABS (INT)	F0	S0	WO	C0	1/11	5000	0.50	30	2	<u>3</u> ₁₁	5.00"	
BEAMS & SUSPENDED SLABS (EXT)	F1	S0	W0	C1	1/11	5000	0.50	30	5	3 ₁₁	5.00"	
POST TENSIONED SLABS & BEAMS*	F3	S0	WO	C21	1/11	5000	0.50	25	6	<u>3</u> " 4	5.00"	
NORMAL WEIGHT CONCRETE ON STEEL DECK	F0	S0	W0	COC	1/11	5000	0.50	30	2	<u>3</u> "	5.00"	

* POST TENSION SLABS AND BEAMS ARE REQUIRED TO ACHIEVE 3.000 PSI WITHIN 72 HOURS

SEE TABLE 19.3.1.1 OF ACI 318-14 FOR EXPLANATIONS OF CATEGORIES AND CLASSES LISTED ABOVE.

MATERIALS UNLESS OTHERWISE NOTED 2.1. NORMAL WEIGHT AGGREGATES ASTM C33

10" WALL

- 2.2. FLY ASH, CLASS F POZZOLAN ASTM C618
- 2.3. ADMIXTURES:
- 2.3.1. AIR-ENTRAINING ADMIXTURES SHALL COMPLY WITH ASTM C 260 (WHEN USED). CALCIUM CHLORIDE SHALL NOT BE ADDED TO THE CONCRETE MIX.
- UNREINFORCED CONCRETE SLABS ON GRADE MAY HAVE CALCIUM CHLORIDE NOT EXCEEDING ONE
- CEMENT COMPLYING WITH ASTM C-150 SHALL BE USED FOR ALL CONCRETE. SEE TABLE OF CONCRETE
- PROPERTIES FOR CEMENT TYPE. NO ALUMINUM CONDUIT OR PRODUCT CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO CONCRETE
- SHALL BE EMBEDDED IN CONCRETE. THE GENERAL CONTRACTOR SHALL SUBMIT A STATEMENT OF MIX DESIGN FOR ALL CONCRETE TO BE REVIEWED BY THE STRUCTURAL ENGINEER BEFORE COMMENCING WORK. ALL MIX DESIGNS SHALL INCORPORATE REQUIREMENTS AND RESTRICTIONS FOUND IN SECTION 19.3 & TABLES 19.3.1.1, 19.3.2.1, AND 19.3.3.1 OF ACI 318-14. IF TWO OR MORE
- REQUIREMENTS ARE IN CONFLICT, THE MORE RESTRICTIVE REQUIREMENT SHALL BE FOLLOWED. ALL CONCRETE WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, REINFORCE CONCRETE WALLS AS FOLLOWS: HORIZONTAL REINFORCEMENT VERTICAL REINFORCEMENT 6" WALL CENTER OF WALL #4 @ 18" oc #4 @ 12" oc 8" WALL #4 @ 12" oc #4 @ 18" oc CENTER OF WALL
- 12" WALL #4 @ 12" oc EF #4 @ 12" oc EF BEFORE CONCRETE IS POURED, CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS.

#5 @ 14" oc

SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, ETC., RELATIVE TO WORK. NO ALUMINUM CONDUIT NOR PRODUCT CONTAINING ALUMINUM NOR ANY OTHER MATERIAL INJURIOUS TO CONCRETE

#4 @ 14" oc

CENTER OF WALL

SHALL BE EMBEDDED IN CONCRETE. PLACE (2) #5 BARS MINIMUM AROUND ALL OPENINGS IN CONCRETE (UNLESS OTHERWISE SHOWN OR NOTED) AND PROJECT 24" BEYOND CORNER OF OPENING.

10. CONTINUOUS TOP AND BOTTOM BARS IN WALLS OVER OPENINGS SHALL BE SPLICED AS FOLLOWS:

- 10.1. TOP BARS AT THE MID-SPAN 10.2. BOTTOM BARS OVER THE SUPPORT 11. WHERE OPENINGS LARGER THAN 16" IN ANY DIRECTION OCCUR IN WALLS OR SLABS, PROVIDE THE SAME SIZE
- ADDITIONAL, FULL-LENGTH REINFORCING AT EACH SIDE OF OPENING EQUAL TO ½ THE NUMBER OF BARS INTERRUPTED BY THE OPENING. SPACE ADDITIONAL BARS AT 4x BAR DIAMETER. 12. CONSTRUCTION JOINTS AND CONTROL JOINTS:
- 12.1. PROVIDE A CONTINUOUS TOOL-ROUGHENED SURFACE AT THE TOP OF ALL WALL FOOTINGS UNLESS NOTED 12.2. ALL HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS SHALL HAVE A CONTINUOUS 2"X4" KEYWAY ALONG
- THE JOINT UNLESS NOTED OTHERWISE, SEE DETAILS. 12.3. PROVIDE REINFORCING DOWELS TO MATCH THE MEMBER REINFORCING AT THE JOINT UNLESS NOTED
- 12.4. SLABS AND BEAMS SHALL NOT HAVE JOINTS IN THE HORIZONTAL PLANE.
- 12.5. CONSTRUCTION JOINTS FOR SLABS ON STEEL DECK SHALL NOT EXCEED A DISTANCE OF 80'-0" IN ANY
- 12.6. CONTROL JOINTS SHALL BE COMPLETE WITHIN 12 HOURS OF CONCRETE PLACEMENT. 13. ALL SLABS ON GRADE SHALL BE PLACED IN ALTERNATE PANELS WITH A MAXIMUM WIDTH OF 90 TIMES THE SLAB THICKNESS IN ANY DIRECTION. CONSTRUCTION JOINTS SHALL NOT EXCEED 125'-0" OC IN ANY DIRECTION; REFER TO TYPICAL DETAILS ON DRAWINGS. UNLESS OTHERWISE NOTED, SLABS ON GRADE SHALL BE 4" THICK AND SHALL BE REINFORCED WITH 6X6-W1.4XW1.4 WELDED WIRE FABRIC CENTERED IN SLAB.
- 14. PROVIDE A #3 NOSING BAR IN ALL STAIR TREADS. 15. REFER TO DRAWINGS FOR TYPICAL CONSTRUCTION JOINT DETAILS. UNLESS NOTED IN DRAWINGS, ALL
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH JOINTS, AND EACH CONSTRUCTION JOINT SHALL BE KEYED. 16. FORMS, SCREEDS, AND BEAMS SUPPORTING SUSPENDED CONCRETE SHALL BE CAMBERED 1/4 INCH PER 10 FEET OF
- SPAN TO COMPENSATE FOR DEAD LOAD DEFLECTIONS. 17. THE EXTENT OF SUSPENDED SLAB POURS SHALL BE FROM CENTERLINE TO CENTERLINE OF SPANS AND SHALL NOT EXCEED 3000 SQ FT OR 64' IN ANY ONE DIRECTION. CONSTRUCTION JOINTS SHALL BE MADE AT THE CENTER OF
- SPANS. CONTROL OR CONSTRUCTION JOINTS SHALL BE PLACED OVER BEAMS. 18. WHERE EXTERIOR SLABS ON GRADE ABUT WALLS OR COLUMNS, PROVIDE % " PRE-FORMED EXPANSION JOINT WITH SEALANT UNLESS NOTED OTHERWISE.
- 19. REINFORCE COMPOSITE SLABS OVER METAL DECK WITH 6"x6" W2.1/W2.1 WELDED WIRE REINFORCEMENT MINIMUM UNLESS NOTED OTHERWISE. WELDED WIRE REINFORCEMENT SHALL BE PLACED 1" TO 12" BELOW THE TOP OF THE SLAB. WELDED WIRE REINFORCEMENT MAY BE SUBSTITUTED WITH "FIBERMESH FIBERS" MANUFACTURED BY PROPEX CONCRETE SYSTEMS CORPORATION, AS APPROVED BY ICC ER-4811. THE RATE OF FIBER APPLICATION SHALL BE BASED ON ICC ER-4811. OTHER SUBSTITUTIONS MAY BE PERMITTED IF AN ICC EVALUATION REPORT IS SUBMITTED TO AND APPROVED BY THE STRUCTURAL ENGINEER.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, CARE, PLACEMENT AND REMOVAL OF ALL FORMWORK AND SHORES.
- 20.1. SUPPORTING FORMS AND SHORING SHALL NOT BE REMOVED UNTIL STRUCTURAL MEMBERS HAVE ACQUIRED SUFFICIENT STRENGTH TO SAFELY SUPPORT THEIR OWN WEIGHT AND ANY CONSTRUCTION LOAD TO WHICH THEY MAY BE SUBJECTED. IN NO CASE, HOWEVER, SHALL FORMS AND SHORING BE REMOVED IN LESS THAN 24 HOURS AFTER CONCRETE PLACEMENT. SUSPENDED SLABS SHALL BE RE-SUPPORTED AFTER FORM REMOVAL UNTIL CONCRETE REACHES IT'S 28-DAY
- SPECIFIED COMPRESSIVE STRENGTH. 21. USE CHAIRS OR OTHER SUPPORT DEVICES RECOMMENDED BY THE CRSI TO SUPPORT BAR AND TIE REINFORCEMENT BARS AND WWF PRIOR TO PLACING CONCRETE. WWF SHALL BE CONTINUOUSLY SUPPORTED AT 36" ON CENTER
- MAXIMUM. REINFORCING STEEL FOR SLABS ON GRADE SHALL BE ADEQUATELY SUPPORTED ON PRECAST CONCRETE UNITS. LIFTING THE REINFORCING OFF THE GRADE DURING PLACEMENT OF CONCRETE IS NOT PERMITTED. 22. CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL OPENINGS, CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS,
- INSERTS AND OTHER EMBEDDED ITEMS PRIOR TO CONCRETE PLACEMENT. 23. ALL EMBEDS, AHCHOR RODS, AND DOWELS SHALL BE SECURELY TIED TO FORMWORK OR TO ADJACENT REINFORCING PRIOR TO THE PLACEMENT OF CONCRETE.
- INTO THE WALL PRIOR TO CONCRETE PLACEMENT. PENETRATIONS WILL NOT BE ALLOWED IN FOOTINGS OR GRADE BEAMS UNLESS DETAILED. PIPING SHALL BE ROUTED AROUND THESE ELEMENTS AND FOOTINGS STEPPED TO AVOID 25. REINFORCING BARS SHALL NOT BE WELDED UNLESS SPECIFICALLY SHOWN ON DRAWINGS. IN SUCH CASES, USE

24. NO PIPES, DUCTS, SLEEVES, ETC. SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. PENETRATIONS THROUGH WALLS WHEN APPROVED SHALL BE BUILT

- ONLY AWS STANDARDS. DO NOT SUBSTITUTE REINFORCING BARS FOR DBAS OR HSAS 26. FORMS, SCREEDS, AND BEAMS SUPPORTING SUSPENDED CONCRETE SHALL BE CAMBERED 1/4 INCH PER 10 FEET OF SPAN TO COMPENSATE FOR DEAD LOAD DEFLECTIONS.
- 27. THE EXTENT OF SUSPENDED SLAB POURS SHALL BE FROM CENTERLINE TO CENTERLINE OF SPANS AND SHALL NOT EXCEED 3000 SQ FT OR 64' IN ANY ONE DIRECTION. 27.1. CONSTRUCTION JOINTS SHALL BE MADE AT THE CENTER OF SPANS.
- 27.2. CONTROL OR CONSTRUCTION JOINTS SHALL BE PLACED OVER BEAMS. 28. WHERE EXTERIOR SLABS ON GRADE ABUT WALLS OR COLUMNS, PROVIDE 3/8" PRE-FORMED EXPANSION JOINT WITH
- 29. WHERE INTERIOR MASONRY WALLS DO NOT BEAR ON A FOOTING PROVIDE A TYPICAL THICKENED SLAB (12" THICK X 16" WIDE) UNDER WALL. REINFORCE WITH (2) #4 X CONTINOUS. DOWEL WALL REINFORCING TO SLAB.
- 30.1. AIR-ENTRAINING ADMIXTURES (WHEN USED), SHALL COMPLY WITH ASTM C260. 30.2. CALCIUM CHLORIDE SHALL NOT BE ADDED TO CONCRETE MIX.

REINFORCING STEEL

- 1. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED UNDER ACI DETAILING MANUAL 315R-18 AND ACI STANDARD
- 2. MATERIALS SHALL BE: A. 2.1. REINFORCING STEEL ASTM A615, GRADE 60.
- HEADED STUD ANCHORS (HSA) ASTM A108 DEFORMED BAR ANCHORS (DBA) ASTM A496
- 2.4. WELDED WIRE FABRIC ASTM A18

#3 = 18"

3. ALL REINFORCEMENT SHALL BE SECURELY TIED AND HELD IN PLACE. 4. CONCRETE REINFORCING

#6 = 54"

- 4.1. LAP ALL CONCRETE REINFORCING PER BAR SIZE AS FOLLOWS
- 4.1.1. REQUIRED LAP LENGTHS FOR SINGLE BAR #3 = 18" #6 = 43"
- **#7 = 60"** #4 = 22" **#**5 = 26" #8 = 72" 4.1.2. REQUIRED LAP LENGTHS FOR 2 BARS
- #4 = 22" #7 = 63" **#**5 = 32" #8 = 72"
- INCREASED BY 25%. SPLICES MAY BE MADE WITH MECHANICAL SPLICES CAPABLE OF 125% TENSION CAPACITY OF THE BAR BEING SPLICED. MECHANICAL SPLICES SHALL BE THE POSITIVE CONNECTING TYPE COUPLER AND SHALL MEET ALL ACI REQUIREMENTS. USE "CADWELD", "LENTON" STANDARD COUPLERS, "BAR-LOCK" OR EQUAL WITH INTERNAL
- STAGGERED A MINIMUM OF 24" APART ALONG THE LONGITUDINAL AXIS OF THE REINFORCING BARS. 4.4. AT JOINTS PROVIDE REINFORCING DOWELS TO MATCH THE MEMBER REINFORCING, UNLESS NOTED OTHERWISE. 4.5. AT ALL DISCONTINUOUS CONTROL OR CONSTRUCTION SLAB ON GRADE JOINTS, PROVIDE (2) #4 X 48".

PROTECTOR. IF MECHANICAL SPLICES ARE USED, SPLICES OR COUPLERS ON ADJACENT BARS SHALL BE

4.2. AT SHEARWALL BOUNDARY ELEMENTS AND AT MOMENT FRAME BEAMS TO COLUMNS, LAP LENGTHS SHALL BE

- 5. PROVIDE ACCESSORIES RECOMMENDED BY THE CRSI NECESSARY TO SUPPORT REINFORCING AT POSITIONS SHOWN
- REINFORCING BARS THAT ARE GOING TO BE WELDED, INCLUDING DEFORMED BAR ANCHORS (DBA), SHALL COMPLY WITH ASTM A706 OR ANOTHER WELDABLE GRADE AND SHALL BE WELDED PER THE AWS RECOMMENDATIONS. ALL CONTINUOUS REINFORCEMENT SHALL TERMINATE WITH A 90-DEGREE TURN OR A SEPARATE CORNER BAR. ALL
- SPLICES SHALL HAVE A MINIMUM LAP OR EMBEDMENT PER REINFORCING SCHEDULE. WHERE A BAR'S LENGTH IS GIVEN AND IT IS TO BE HOOKED, THE HOOK SHALL BE IN ADDITION TO THE LENGTH GIVEN
- UNLESS SHOWN OTHERWISE 9. COVER TO MAIN REINFORCEMENT FROM ADJACENT SURFACES SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE:
- CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE GROUND EXPOSED TO WEATHER OR IN CONTACT WITH GROUND
- 9.2.1. (#6 AND LARGER) (#5 AND SMALLER) 9.3. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND 9.3.1. (SLABS, JOISTS, AND WALLS #11 AND SMALLER)
- 9.4. IN ALL CASES, THE MINIMUM COVER SHALL NOT BE LESS THAN THE DIAMETER OF ADJACENT BARS 10. BEFORE FABRICATION AND PLACEMENT, SHOP DRAWINGS FOR ALL REINFORCING STEEL SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER.

WOOD

ALL STRUCTURAL LUMBER SHALL CONFORM TO THE LATEST EDITION OF THE WESTERN WOOD PRODUCT ASSOCIATION GRADE RULES BOOK AND UNLESS NOTED OTHERWISE ON PLANS OR IN SPECIFICATIONS SHALL BE

DOUGLAS FIR/LARCH AS FOLLOWS: E = 1.500 KSI LIGHT FRAMING (2" & WIDER) NO. 2 GRADE BEAMS & STRINGERS (5"X5" & LARGER) NO. 1 GRADE $F_{R} = 1,300 \text{ PSI}$ E = 1,600 KSIE = 1,600 KSI POSTS & TIMBERS (5"X5" & LARGER) NO. 1 GRADE $F_{B} = 1,200 \text{ PSI}$ FOUNDATION GRADE REDWOOD SILL PLATES IN CONTACT W/ CONC

- OR PRESSURE TREATED DF-L NO. 2 GRADE $F_{R} = 875 \, PSI$ E = 1,500 KSIALL SHEATHING SHALL BE C-C OR C-D GRADE AND SHALL CONFORM TO THE PRODUCT STANDARD P.S. 1-07 (EXP. 1) AND SHALL BE IDENTIFIED WITH THE A.P.A. GRADE MARK. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION IDENTIFICATION INDEX
- 2.1. ALL PLY SHALL BE NAILED AS FOLLOWS: AT SHEET EDGES (E.N.): 10D @ 6"O.C., UNO

9.3.2. (BEAMS, COLUMNS, PEDESTALS AND TENSION TIES)

- AT FIELD NAILING (F.N.): 2.1.2.
- 2.1.2.1. FLOOR: 8D @ 12"O.C., UNO WALLS & ROOF: 8D @ 12"O.C., UNO AT WALLS, BLOCK ALL UNSUPPORTED EDGES WITH BLOCKING OF SAME WIDTH OR DEPTH OF STUDS OR JOISTS. 2X4 FLAT BLOCKS SHALL BE USED AT ROOF
- USE OF MACHINE NAILING IS SUBJECT TO SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE PROJECT ENGINEER OF RECORD AND THE ENFORCEMENT AGENCY. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE ACCEPTED IN 56" THICK PLYWOOD. IF NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER, OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY. FULL
- HEAD COMMON NAILS WITCH PROVIDE MINIMUM DEPTH OF EMBEDMENT WILL BE REQUIRED. ALL PLATES AND SILLS BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR(P.T.D.F.)
- STUD WALLS BUTTING A CONCRETE OR MASONRY WALL SHALL BE BOLTED TO THE 1 WALL WITH "Ø ANCHOR BOLTS AT 24" 2 O.C. THROUGH DOUBLE STUD, UNOALL ROOF AND FLOOR JOISTS SHALL BE SUPPORTED LATERALLY AT THE ENDS AND AT EACH SUPPORT BY SOLID BLOCKING 2" THICK AND THE FULL DEPTH OF THE JOIST, EXCEPT WHERE THE END OF THE JOIST IS ATTACHED TO A HEADER OR BOND BEAM WITH METAL ANCHORS OR HANGERS. PROVIDE APPROVED BRIDGING AT A MAXIMUM OF 8'-0" OC BETWEEN SUPPORTS.
- BUILT-UP BEAMS OF 2X MEMBERS SHALL BE SPIKED TOGETHER WITH 16D SPIKES AT 12" OC, STAGGERED. USE (2) 20D COMMON NAILS AT ALL SUPPORTS. ALL WOOD BEAMS AND HEADERS SHALL BEAR ON MINIMUM OF TWO CRIPPLE STUDS AT EACH END UNLESS SHOWN OTHERWISE.
- ALL WOOD POSTS AND BUILT-UP COLUMNS SHALL RUN CONTINUOUS. BUILT-UP COLUMNS SHALL BE SPIKED TOGETHER WITH 16D SPIKES AT 12" OC. . FASTENERS AND CONNECTORS FOR PRESERVATIVE- TREATED WOOD. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATEDGALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.FASTENERS OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS

SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN

- ACCORDANCE WITH ASTM B 695, CLASS 55 MINIMUM. CONNECTORS THAT ARE USED IN EXTERIOR APPLICATIONS AND IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL HAVE COATING TYPES AND WEIGHTS IN ACCORDANCE WITH THE TREATED WOOD OR CONNECTOR MANUFACTURER'S RECOMMENDATIONS. IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, A MINIMUM OF ASTM A 653, TYPE G185 ZINC-COATED GALVANIZED STEEL, OR . NAILING SHALL BE WITH COMMON WIRE EQUIVALENT, SHALL BE USED. NAILS AND SHALL CONFORM TO THE NAILING
- SCHEDULE, TABLE 2304.9.1 OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE AND THE REQUIREMENTS OF ASTM F 1667 . ALL BOLTS, NUTS AND LAG SCREWS USED IN WOOD SHALL CONFORM TO ASTM STANDARD A307 AND SHALL BE
- LOCATED IN A MEMBER WITH THE FOLLOWING MINIMUM DIMENSION (UNLESS DETAILED OTHERWISE): 12.1. BOLT TO END OF MEMBER 12.2. BOLT TO EDGE OF MEMBER
- 12.4. SPACING BETWEEN BOLT ROWS 13. ALL BOLTS AND NUTS SHALL BE FITTED WITH STEEL WASHERS WHERE THEY BEAR AGAINST WOOD, AND ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED UPON INSTALLATION AND RETIGHTENED PRIOR TO CLOSING IN OR COMPLETION OF JOB.
- 14. ALL HANGERS, STRAPS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE SIMPSON STRONG TIE OR I.C.C. APPROVED EQUAL.
- 15. SOLID FULL DEPTH BLOCKING OR CROSS BRIDGING SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 8'-0" FOR ALL 2X JOISTS 8" AND DEEPER @ ROOF AND 4" AND DEEPER @ FLOOR. 16. ALL JOINTS SHALL HAVE THEIR ENDS HELD IN POSITION AT ALL BEARING POINTS BY BLOCKING OR APPROVED
- 17. NO LOAD MEMBER MAY FALL BELOW GRADE.

ENGINEERED LUMBER

12.3. ON-CENTER SPACING OF BOLTS IN A ROW

VERSA-LAM 2650 BEAMS WITH $3\frac{1}{2}$ " $5\frac{1}{4}$ " AND $5\frac{1}{2}$ " WIDTHS

Fb = 2,650 P.S.I., Fv = 285 P.S.I,Fc (PERP) = 750 P.S.I, E = 1,900,000 PSI. 3 1 1

VERSA-LAM 3100 Fb BEAMS $1\frac{3}{4}$, $3\frac{1}{2}$, $5\frac{1}{4}$ AND 7" WIDTHS:

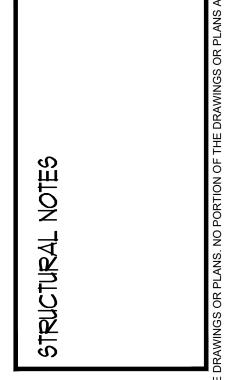
BEAMS SHALL HAVE THE FOLLOWING PROPERTIES: Fb = 2,900 P.S.I., Fv = 290 P.S.I, Fc (PERP) = 650 P.S.I, E = 2,000,000 PSI.

GLUE-LAMINATED BEAMS 24F-V4 OR 24F-V8:

BEAMS SHALL HAVE THE FOLLOWING PROPERTIES: Fb = 2,400 P.S.I., Fv = 400 P.S.I,Fc (PERP) = 680 P.S.I, E = 1,300,000 PSI.

PROJECT #: 043

CONTRACTOR TO VERIFY ALI CONDITIONS & DIMENSIONS SHEET SIZE: 24X36



JAIN FLOOR BASEMENT COLD STRG. USP. SLAB ONUS ADDITION IVING SPACE ABV. GRADE OTAL SQ. FT.

> 8/1/2025 **○**.:08/08/2025∙ No. 12072728 🔊 CHRISTOPHER COLIN RHOADES:

J.STEWART ROJ. ENGINEER: | -

GENERAL STRUCTURAL NOTES

|QUALITY ASSURANCE PLAN

CHAPTER N OF AISC 360-16, AND CHAPTER J OF AISC 341-16.

- SPECIAL INSPECTIONS SHALL BE PROVIDED BY THE OWNER ACCORDING TO IBC CHAPTER 17 FOR THE ITEMS IDENTIFIED IN THIS SECTION AND ON THE CONTRACT DOCUMENTS. SEE THE STRUCTURAL SPECIAL INSPECTION SCHEDULE BELOW FOR ADDITIONAL INFORMATION ON STEEL, CONCRETE, MASONRY, AND SOIL SPECIAL INSPECTION
- THE NAMES AND CREDENTIALS OF SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT WHEN APPLYING FOR A BUILDING PERMIT.
- SPECIAL INSPECTION REPORTS SHALL BE DELIVERED TO THE ENGINEER OF RECORD, ARCHITECT, AND OWNER (AS REQUESTED) BI-WEEKLY OR MORE FREQUENTLY AS REQUIRED BY THE INSPECTOR OR BUILDING OFFICIAL.
- OFF-SITE FABRICATION: WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE UNDER IBC SECTION 1704.2.5 UNLESS THE FABRICATOR IS APPROVED ACCORDING TO IBC SECTION 1704.2.5.1. STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS SHALL BE PROVIDED UNDER SECTION 1705.2,
- WELDING: WELDING INSPECTION SHALL BE PROVIDED UNDER SECTIONS N5.4 AND N5.5 OF AISC 360-16. THE SPECIAL INSPECTOR SHALL ALSO INSPECT ELEMENTS THAT ARE PART OF THE SEISMIC-FORCE-RESISTING SYSTEM,
- ACCORDING TO SECTION J6 OF AISC 341-16. HIGH-STRENGTH BOLTS: SPECIAL INSPECTION SHALL BE PROVIDED FOR THE INSTALLATION OF HIGH-STRENGTH
- BOLTS UNDER SECTION N5.6 OF AISC 360-16. ELEMENTS THAT ARE PART OF THE SEISMIC-FORCE-RESISTING SYSTEM SHALL ALSO BE INSPECTED ACCORDING TO SECTION J7 OF AISC 341-16. CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS SHALL BE PROVIDED UNDER SECTION 1705.3
- AND TABLE 1705.3 OF THE IBC WOOD: WOOD ELEMENTS OF THE SEISMIC-FORCE-RESISTING SYSTEM UNDER SECTIONS 1705.5 AND 1705.12.2. COLD-FORMED STEEL FRAMING: CONNECTIONS OF ELEMENTS IN THE SEISMIC-FORCE-RESISTING SYSTEM UNDER
- SOILS: SPECIAL INSPECTION SHALL BE PROVIDED FOR PLACEMENT OF FILL UNDER SECTION 1705.6 AND TABLE 1705.6. WALL PANELS AND VENEERS: SPECIAL INSPECTION SHALL BE PROVIDED FOR EXTERIOR AND INTERIOR
- ARCHITECTURAL WALL PANELS AND THE ANCHORING OF VENEERS UNDER SECTION 1705.12.5. EPOXY ANCHORS: BEFORE AND DURING EPOXY INJECTION TO ENSURE PROPER INSTALLATION AS PER MANUFACTURER'S REQUIREMENTS. THE CONTRACTOR SHALL SUBMIT THE PROPOSED EPOXY MANUFACTURER'S ICC-ES REPORT TO THE STRUCTURAL ENGINEER BEFORE INSTALLATION.

QUALITY ASSURANCE - CONTRACTOR'S RESPONSIBILITY

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC-FORCE-RESISTING SYSTEM. DESIGNATED SEISMIC SYSTEM, OR WIND OR SEISMIC RESISTING COMPONENT LISTED IN THE QUALITY ASSURANCE PLAN SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER BEFORE THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:

- ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE QUALITY ASSURANCE
- DOCUMENTS APPROVED BY THE BUILDING OFFICIAL
- PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.
- IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THE POSITION(S) IN THE ORGANIZATION.

ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION

POST INSTALLED ANCHORS

- FOLLOW ALL ICC EVALUATION REPORT AND MANUFACTURERS' REQUIREMENTS AND RECOMMENDATIONS FOR POST-INSTALLED ANCHOR INSTALLATION. WHERE CONFLICTS MAY EXIST, THE MOST STRINGENT REQUIREMENT APPLIES
- ANCHOR RODS SHALL BE ASTM F 1554 GR 36 (UNLESS NOTED OTHERWISE IN DRAWINGS) WITH DIAMETER INDICATED, THREADED AND GALVANIZED
- PROVIDE SCREEN TUBES FOR UNGROUTED MASONRY UNITS OR UNREINFORCED MASONRY WALLS. ALL HOLES IN HOLLOW, BRICK, OR STONE MASONRY SHALL BE PERFORMED IN THE "ROTARY-ONLY" MODE WITH
- THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH DOCUMENTATION SHOWING THEIR PERSONNEL HAVE RECEIVED TRAINING PRIOR TO
- FOLLOW MANUFACTURER AND ICC EVALUATION REPORT REQUIREMENTS FOR INSTALLATION TEMPERATURE OF ADHESIVE ANCHORS. ADHESIVE ANCHORS SHALL NOT BE INSTALLED OR CURED OUTSIDE OF APPROVED TEMPERATURE RANGES.
- ADHESIVE ANCHORS IN CONCRETE SHALL B HIT-RE 500 V 3 BY HILTI (ESR-3814) - NORMAL-WEIGHT CONCRETE ONLY
- SET-3 G BY SIMPSON (ESR-4057) 7.3. PURE 110 + BY POWERS FASTENERS (ESR-3298)
- ADHESIVE ANCHORS IN GROUTED MASONRY SHALL BE 8.1. HIT-HY 270 BY HILTI (ESR-4143)

COMMENCEMENT OF WORK.

- 8.2. SET-3 G BY SIMPSON (ESR-4057) 9. MECHANICAL EXPANSION ANCHORS IN CONCRETE SHALL BE
- 9.1. KWIK BOLT TZ 2 BY HILTI (ESR-4266)
- 9.2. STRONG-BOLT 2 BY SIMPSON (ESR 3037 . MECHANICAL ANCHORS IN GROUTED MASONRY SHALL BE
- 10.1. KWIK BOLT TZ 2 BY HILTI (ESR-4561)
- . THE CONTRACTOR MAY SUBMIT, FOR REVIEW AND APPROVAL, THE MANUFACTURER'S ICC EVALUATION REPORT OF ALTERNATE ANCHOR SYSTEMS. THE ALTERNATE METHOD SHALL PROVIDE MINIMUM CAPACITIES EQUAL TO OR GREATER THAN THOSE IN THE ABOVE NOTED ANCHORS. THE ALTERNATE METHOD SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE SUBSTITUTION.

SPECIAL INSPECTION AND TESTING

- SPECIAL INSPECTION SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THE ICC EVALUATION REPORT, PER SECTION 1704.13 OF THE IBC.
- 12.2. TESTING SHALL BE DONE ACCORDING TO THE MORE STRINGENT REQUIREMENTS OF THE ICC EVALUATION REPORT AND THE VALUES LISTED BELOW.
- 12.2.1. ADHESIVE ANCHORS IN CONCRETE OR SOLID GROUTED MASONRY: 50 % OF ANCHORS IN NON-REDUNDANT ELEMENTS (E.G. COLUMN, BRACE CONNECTIONS, BOUNDARY STEEL, HOLD-DOWNS) AND 10 % OF ANCHORS IN REDUNDANT ELEMENTS SHALL BE TENSION TESTED TO 100 % OF MANUFACTURER'S SPECIFIED ALLOWABLE LOAD IN THE ICC EVALUATION REPORT.
- ADHESIVE ANCHORS IN SOLID BRICK MASONRY: TENSION TEST 5 % OF ALL ANCHORS TO LBS. HOLD LOAD FOR FIVE MINUTES. TORQUE TEST 25 % OF ALL ANCHORS WITH A CALIBRATED

SIMPSON NOTES FOR INSTALLER

THESE GENERAL INSTRUCTIONS FOR THE INSTALLER ARE PROVIDED TO ENSURE PROPER SELECTION AND INSTALLATION OF SIMPSON STRONG-TIE COMPANY INC. PRODUCTS AND MUST BE FOLLOWED CAREFULLY. THESE GENERAL INSTRUCTIONS ARE IN ADDITION TO THE SPECIFIC INSTALLATION INSTRUCTIONS AND NOTES PROVIDED FOR EACH PRODUCT, ALL OF WHICH SHOULD BE CONSULTED PRIOR TO AND DURING INSTALLATION OF SIMPSON STRONG-TIE

- ALL SPECIFIED FASTENERS MUST BE INSTALLED ACCORDING TO THE INSTRUCTIONS IN THIS CATALOG. INCORRECT FASTENER QUANTITY, SIZE, PLACEMENT, TYPE, MATERIAL, OR FINISH MAY CAUSE THE CONNECTION TO FAIL. PRIOR TO USING A PARTICULAR FASTENER, PLEASE CONSULT CONNECTOR FASTENER TYPES ON PP. 21-22.
- LARGER-DIAMETER FASTENERS MAY BE SUBSTITUTED FOR SMALLER-DIAMETER FASTENERS IN CONNECTORS PROVIDED THE LARGER FASTENER DOES NOT CAUSE SPLITTING IN THE WOOD MEMBER AND THE CONNECTOR
- SIMPSON STRONG-TIE STRONG DRIVE® SD CONNECTOR SCREWS ARE AVAILABLE FOR USE WITH OUR CONNECTORS. THEY ARE DESIGNED TO REPLACE NAILS IN CERTAIN PRODUCTS. SEE PP. 348-352 FOR INFORMATION. SCREWS NOT MANUFACTURED BY SIMPSON STRONG-TIE ARE NOT SUPPORTED IN OUR
- FILL ALL FASTENER HOLES AS SPECIFIED IN THE INSTALLATION INSTRUCTIONS FOR THAT PRODUCT. REFER TO P. 20 FOR THE REQUIREMENTS OF THE VARIOUS SHAPES OF FASTENER HOLE
- DO NOT OVERDRIVE NAILS. OVERDRIVEN NAILS REDUCE SHEAR CAPACITY. SEE "OVER-DRIVEN NAILS IN CONNECTORS AND STRAPS" ON P. 22 FOR ADDITIONAL INFORMATION.
- PRODUCTS SHALL BE INSTALLED FOR THE USE SPECIFIED. USE THE MATERIALS SPECIFIED IN THE INSTALLATION INSTRUCTIONS. SUBSTITUTION OF OR FAILURE TO USE SPECIFIED MATERIALS MAY CAUSE THE CONNECTION TO FAIL. DO NOT ALTER INSTALLATION PROCEDURES FROM THOSE SET FORTH IN THIS CATALOG. SEE TERMS AND
- DO NOT ADD FASTENER HOLES OR OTHERWISE MODIFY SIMPSON STRONG-TIE COMPANY INC. PRODUCTS. THE PERFORMANCE OF MODIFIED PRODUCTS MAY BE SUBSTANTIALLY WEAKENED. SIMPSON STRONG-TIE WILL NOT WARRANT OR GUARANTEE THE PERFORMANCE OF SUCH MODIFIED PRODUCTS.
- THE PROPER USE OF CERTAIN PRODUCTS REQUIRES THAT THE PRODUCT BE BENT. FOR THOSE PRODUCTS. INSTALLERS MUST NOT BEND THE PRODUCTMORE THAN ONE TIME (ONE FULL CYCLE).
- BOLT HOLES SHALL BE AT LEAST A MINIMUM OF 12" AND NO MORE THAN A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER (PER THE 2015/2018 NDS, SECTION 12.1.3.2 AND AISI S100, TABLE J3, IF APPLICABLE).
- INSTALL ALL SPECIFIED FASTENERS BEFORE LOADING THE CONNECTION.
- 10. SOME HARDENED FASTENERS MAY HAVE PREMATURE FAILURE IF EXPOSED TO MOISTURE. THESE FASTENERS ARE RECOMMENDED TO BE USED IN DRY INTERIOR APPLICATIONS. USE PROPER SAFETY EQUIPMENT.
- WELDING GALVANIZED STEEL MAY PRODUCE HARMFUL FUMES; FOLLOW PROPER WELDING PROCEDURES AND SAFETY PRECAUTIONS. WELDING SHOULD BE IN ACCORDANCE WITH A.W.S. (AMERICAN WELDING SOCIETY) STANDARDS. UNLESS OTHERWISE NOTED SIMPSON STRONG-TIE® CONNECTORS CANNOT BE WELDED.
- 12. PNEUMATIC OR POWER-ACTUATED FASTENERS MAY DEFECT AND INJURE THE OPERATOR OR OTHERS. PNEUMATIC NAIL TOOLS MAY BE USED TO INSTALL CONNECTORS, PROVIDED THE CORRECT QUANTITY AND TYPE OF NAILS (LENGTH AND DIAMETER) ARE PROPERLY INSTALLED IN THE NAIL HOLES. CONNECTORS WITH TOOL EMBOSSMENTS OR TOOLS WITH NAIL HOLE-LOCATING MECHANISMS SHOULD BE USED. CSHP COILED STRAP WORKS WITH SEVERAL MANUFACTURERS' FULL ROUND-HEAD PNEUMATIC FRAMING TOOLS. VISIT STRONGTIE.COM/CSHP FOR ADDITIONAL INFORMATION. FOLLOW THE MANUFACTURER'S INSTRUCTIONS AND USE THE APPROPRIATE SAFETY EQUIPMENT. CONTACT SIMPSON STRONG-TIE. POWER-ACTUATED FASTENERS SHOULD NOT BE USED TO INSTALL CONNECTORS, UNLESS NOTED OTHERWISE. REFERENCE PP. 163 AND 165 FOR TOP-FLANGE HANGER INSTALLATION WITH POWDER-ACTUATED FASTENERS
- JOIST SHALL BEAR COMPLETELY ON THE CONNECTOR SEAT, AND THE GAP BETWEEN THE JOIST END AND THE HEADER SHALL NOT EXCEED 1" PER ICC-ES AC13, ASTM D1761 AND ASTM D7147 TEST STANDARDS, UNO.
- FASTENERS ARE PERMITTED TO BE INSTALLED THROUGH METAL TRUSS PLATES WHEN APPROVED BY THE TRUSS DESIGNER IN ACCORDANCE WITH ANSI/TPI 1-2014, SECTION 7.5.3.4 AND 8.9.2. INSTALLATION OF SIMPSON STRONG-TIE® STRONG-DRIVE® SDS HEAVY-DUTY CONNECTOR SCREWS THROUGH METAL CONNECTOR PLATES REQUIRES THE PLATES TO BE PRE-DRILLED USING A MAXIMUM OF A 5/32" BIT. DO NOT DRIVE NAILS THROUGH THE TRUSS PLATE ON THE OPPOSITE SIDE OF SINGLE-PLY TRUSSES WHICH COULD FORCE THE PLATE OFF THE TRUSS.
- 15. NUTS SHALL BE INSTALLED SUCH THAT THE END OF THE THREADED ROD OR BOLT IS AT LEAST FLUSH WITH THE TOP
- 16. WHEN INSTALLING HURRICANE TIES ON THE INSIDE OF THE WALL SPECIAL CONSIDERATIONS MUST BE TAKEN TO PREVENT CONDENSATION ON THE INSIDE OF THE COMPLETED STRUCTURE IN COLD CLIMATES
- UNLESS OTHERWISE NOTED, CONNECTORS SHOWN IN THIS CATALOG HAVE BEEN DESIGNED TO BE INSTALLED AT THE TIME THE FRAMING MEMBERS ARE INSTALLED. CONTACT SIMPSON STRONG-TIE FOR RETROFIT SUITABILITY OF SPECIFIC CONNECTORS INCLUDING THOSE MANUFACTURED IN ACCORDANCE WITH THE HANGER OPTIONS SECTION

TYPICAL TJI NOTES

NAILING OF SHEATHING TO TOP FLANGE

NAIL SIZE	CLOSEST ON CENTER SPACING PER ROW
8d BOX	2"
8d COMMON	2"
10d, 12d BOX	2"
10d, 12d COMMON	3"

- MAXIMUM SPACING OF NAILS IS: 18" O.C. FOR $9\frac{1}{2}$ " AND $11\frac{7}{8}$ " I-JOISTS.
- 24" O.C. FOR 14" AND 16" I-JOISTS. • IF MORE THAN 1 ROW OF NAILS IS USED, THE ROWS MUST BE OFFSET AT LEAST ½".
- 14 GA STAPLES MAY BE SUBSTITUTED FOR 8d NAILS IF MINIMUM PENETRATION OF 1" INTO THE I-JOIST IS ACHIEVED.

DO NOT ALLOW WORKERS ON I-JOISTS UNTIL ALL BLOCKING, RIM JOISTS, HANGERS AND TEMPORARY BRACING ARE COMPLETED IN ACCORDANCE WITH ITEMS BELOW. IMPROPER CONCERN FOR BRACING DURING CONSTRUCTION CAN RESULT IN SERIOUS ACCIDENTS. UNDER NORMAL CONDITIONS IF THE FOLLOWING GUIDELINES ARE OBSERVED, ACCIDENTS WILL BE AVOIDED.

- 1. A LATERAL STRENGTH, LIKE A BRACED END WALL OR AN EXISTING DECK, MUST BE ESTABLISHED AT THE ENDS OF THE BAY. THIS CAN ALSO BE ACCOMPLISHED BY A TEMPORARY OR PERMANENT DESK (SHEATHING) NAILED TO THE FIRST 4 FEET OF JOISTS AT THE END OF THE BAY.
- 2. ALL BLOCKING, HANGERS AND RIM JOISTS AT THE END SUPPORTS OF THE I-JOISTS MUST BE COMPLETELY INSTALLED TEMPORARY STRUT LINES OF 1x4 MIN. MUST BE NAILED TO THE BRACED END WALL OR SHEATHED AREA AS IN 1

ABOVE AND TO EACH JOIST AT THE ON-CENTER SPACING SHOWN. WITHOUT THIS BRACING, BUCKLING SIDEWAYS OR ROLL OVER IS HIGHLY PROBABLE UNDER LIGHT CONSTRUCTION LOADS - LIKE TWO WORKERS AND ONE LAYER OF

- 4. SHEATHING MUST BE TOTALLY ATTACHED TO EACH I-JOIST BEFORE ADDITIONAL LOADS CAN BE PLACED ON THE
- 5. ENDS OF CANTILEVERS REQUIRE STRUT LINES ON BOTH THE TOP AND BOTTOM FLANGES.
- 6. THE TOP FLANGES MUST REMAIN STRAIGHT 1 WITHIN A TOLERANCE OF $\frac{1}{2}$ " + OR FROM TRUE ALIGNMENT.

MANUFACTURED TRUSS NOTES

TRUSS DESIGN DRAWINGS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING INFORMATION:

- SLOPE OR DEPTH, SPAN AND SPACING
- LOCATION OF ALL JOINTS AND SUPPORT LOCATIONS

5.1. TOP CHORD LL = 30 PSF (BALANCED)

- NUMBER OF PLIES IF GREATER THAN ONE
- REQUIRED BEARING WIDTHS
- DESIGN LOADS:
- 5.2. TOP CHORD DL = 15 PSF
- 5.3. BOTTOM CHORD LL = 15 PSF 5.4. BOTTOM CHORD DL = 5 PSF
- 5.5. ENVIRONMENTAL DESIGN CRITERIA AND LOADS (WIND, RAIN, SNOW, SEISMIC, ETC.). OTHER LATERAL LOADS, INCLUDING DRAG STRUT LOADS; ADJUSTMENTS TO WOOD MEMBER AND METAL
- CONNECTOR PLATE DESIGN VALUE FOR CONDITIONS OF USE MAXIMUM REACTION FORCE AND DIRECTION, INCLUDING MAXIMUM UPLIFT REACTION FORCES WHERE APPLICABLE
- 8. METAL-CONNECTOR-PLATE TYPE, SIZE AND THICKNESS OR GAGE, AND THE DIMENSIONED LOCATION OF EACH METAL CONNECTOR PLATE EXCEPT WHERE SYMMETRICALLY LOCATED RELATIVE TO THE JOINT INTERFACE;
- SIZE, SPECIES AND GRADE FOR EACH WOOD MEMBER;
- 10. TRUSS-TO-TRUSS CONNECTIONS AND TRUSS FIELD ASSEMBLY REQUIREMENTS
- 11. CALCULATED SPAN-TO-DEFLECTION RATIO AND MAXIMUM VERTICAL AND HORIZONTAL DEFLECTION FOR LIVE AND
- 12. MAXIMUM AXIAL TENSION AND COMPRESSION FORCES IN THE TRUSS MEMBERS 13. REQUIRED PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT LOCATION AND THE METHOD AND DETAILS OF
- RESTRAINT/BRACING TO BE USED IN ACCORDANCE WITH SECTION 2303.4.1.2. OF THE 2021 IBC 14. TRUSS DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AFTER APPROVAL OF
- THE STRUCTURAL ENGINEERS OF RECORD. DESIGN AND FABRICATION OF TRUSSES SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE LATEST EDITION. DRAWINGS AND CALCULATIONS SHALL HAVE THE ORIGINAL SIGNATURE OF THE RESPONSIBLE CIVIL OR STRUCTURAL ENGINEER LICENSED IN UTAH.
- 15. THE TRUSS MANUFACTURER SHALL PROVIDE A TRUSS PLACEMENT DIAGRAM THAT IDENTIFIES THE PROPOSED LOCATION FOR EACH INDIVIDUALLY DESIGNATED TRUSS AND REFERENCES THE CORRESPONDING TRUSS DESIGN DRAWING. THE TRUSS PLACEMENT DIAGRAM SHALL BE PROVIDED AS PART OF THE TRUSS SUBMITTAL PACKAGE,
- AND WITH THE SHIPMENT OF TRUSSES DELIVERED TO THE JOB SITE. 16. THE TRUSS SUBMITTAL PACKAGE PROVIDED BY THE TRUSS MANUFACTURER SHALL CONSIST OF EACH INDIVIDUAL TRUSS DESIGN DRAWING, THE TRUSS PLACEMENT DIAGRAM, THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING METHOD AND DETAILS AND ANY OTHER STRUCTURAL DETAILS GERMANE TO THE TRUSSES;
- AND, AS APPLICABLE, THE COVER/TRUSS INDEX SHEET. 17. IN ADDITION TO IBC SECTIONS 2303.4.1 THROUGH 2303.4.5. THE DESIGN, MANUFACTURE AND QUALITY ASSURANCE
- OF METAL PLATE CONNECTED WOOD TRUSSES SHALL BE IN ACCORDANCE WITH TPI 1

STRUCTURAL DRAWING SUBMITTALS

- 1. THE CONTRACTOR SHALL SUBMIT DRAWINGS AND CALCULATIONS BEARING THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT CONSTRUCTION TO THE ARCHITECT AND STRUCTURAL
- ENGINEER BEFORE SUBMITTING TO JURISDICTION FOR REVIEW AND PERMITTING. CONTRACTOR SHALL REVIEW AND VERIFY ALL SHOP DRAWINGS TO ENSURE THEY COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ENGINEER WILL REVIEW THE SHOP DRAWINGS FOR GENERAL CONFORMANCE WITH
- THE DESIGN CONCEPT. THIS REVIEW BY THE ENGINEER SHALL NOT BE CONSTRUED AS APPROVAL. THE CITY SUBMITTAL SHALL INCLUDE A LETTER STATING THAT THE ARCHITECT/ENGINEER REVIEW HAS BEEN PERFORMED AND THAT THE PLANS AND CALCULATIONS FOR THE DEFERRED SUBMITTAL ITEMS ARE FOUND TO BE
- ACCEPTABLE (E.G., WITH REGARD TO GEOMETRY, LOAD CONDITIONS, ETC.) WITH NO EXCEPTIONS. PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW FOR THE FOLLOWING, BUT NOT LIMITED TO:
- 4.1. CONCRETE FOUNDATION WALL REINFORCEMENT
- DECK REINFORCEMENT STRUCTURAL MASONRY ELEMENTS 4.4.
- STRUCTURAL STEEL
- OPEN-WEB WOOD FLOOR & ROOF TRUSSES 4.7. DESIGN-BUILD STAIRS AND RAILINGS
- OPEN-WEB STEEL JOISTS 4.9. PREFABRICATED WOOD I-JOISTS (BY WOOD I-JOIST MANUFACTURER)
- 4.10. PREFABRICATED ROOF TRUSSES (BY ROOF TRUSS MANUFACTURER)
- 4.11. CONCRETE MIX DESIGNS (BY CONCRETE SUPPLIER) 4.12. POST-TENSIONING ELONGATIONS (BY PT SUPPLIER)
- REFER TO THE ARCHITECTURAL DRAWINGS FOR SHOP DRAWING SUBMITTALS REQUIRED FOR NON-STRUCTURAL

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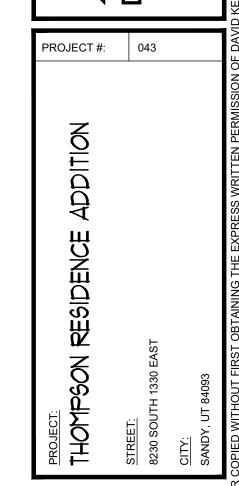
	ANCHOR POLT	1.14/	LICHT WEIGHT
	ANCHOR BOLT	LW	LIGHT WEIGHT MASONRY
	ADDENDUM	MAS	
	ARCHITECT/ENGINEER	MECH	MECHANICAL
H	ARCHITECT	MFR	MANUFACTURER
_	AT BUILDING	MIN	MINIMUM
3	BUILDING	MISC	MISCELLANEOUS
_	BLOCK	MOR	MORTAR
j	BLOCKING	N	NORTH
	BEAM	(N)	NEW
	BOUNDARY NAILING	N/A	NOT APPLICABLE
	BOTTOM OF FOOTING	MB	MACHINE BOLT
	BEARING PLATE	NIC	NOT IN CONTRACT
	BEARING	NO	NUMBER
Т	BASEMENT	NTS	NOT TO SCALE
	CENTER TO CENTER	OC	N CENTER
	CUBIC FOOT	OD	OUTSIDE DIAMETER
	CAST IN PLACE	OPG	OPENING
	CONTROL/ CONSTRUCTION JOINT	OPP	OPPOSITE
	CONCRETE MASONRY UNIT	OSB	ORIENTED STRAND BOARD
	COLUMN	OWJT	OPEN WEB JOIST
С	CONCRETE	PAR	PARALLEL
ST	CONSTRUCTION	PBD	PARTICLE BOARD
Т	CONTINUOUS	PCC	PRECAST CONCRETE
	COMPLETE PENETRATION WELD	PCF	POUNDS PER CUBIC FOOT
	DEPRESSED	PFT	PREFAB TRUSS
	DETAIL	PL	PLATE PLF POUNDS PER LINEAR FOOT
	DOUGLAS FIR	PRM	PERIMETER
	DIAMETER	PSF	POUNDS PER SQUARE FOOT
	DIMENSION	PSI	POUNDS PER SQUARE INCH
	DEAD LOAD	PT	PRESSURE TREATED
	DOWN	RD	ROOF DRAIN
ì	DRAWING	REINF	REINFORCED
	EACH WAY	REV	REVISED OR REVISION
	EAST	S	SOUTH
	EXISTING	SAD	SEE ARCH DWGS
	EACH	SC	SOLID CORE
	EACH FACE	SCH	SCHEDULE
	EXPANSION JOINT	SEC	SECTION
	ELEVATION	SF	SQUARE FOOT
	EDGE NAILING	SHT	SHEET
	ENGINEER OF RECORD	SIM	SIMILAR
	EQUAL	SPEC	SPECIFICATIONS
	EACH SIDE	SP	STANDARD PIPE
	FACE BRICK	SQ	SQUARE
	FINISH FLOOR ELEVATION	STL	STEEL
	FIELD NAILING	STD	STANDARD
V	FOUNDATION	STRUCT	STRUCTURAL
•	FACE OF BLOCK	SUS	SUSPENDED
	FACE OF CONCRETE	SW	SHEAR WALL
	FACE OF STUD	SYM	SYMMETRICAL
	FULL-PENETRATION WELD	T&G	TONGUE AND GROOVE
	FOOTING	THK	THICK
	GAGE	TOB	TOP OF BEAM
/	GALVANIZED	TOS	TOP OF STEEL
•	GENERAL CONTRACTOR	TOW	TOP OF WALL
	GLUED LAMINATED BEAM	TSL	TOP OF SLAB
	HOLLOW CORE	TYP	TYPICAL
	HEADER	UNO	UNLESS NOTED OTHERWISE
	HOLLOW METAL	VERT	VERTICAL
7	HORIZONTAL	VIF	VERIFY IN FIELD
_	HOLLOW STRUCTURAL STEEL	W	WEST
	HEIGHT	W/	WITH
2	HEATING, VENTILATING, AN A/C	WA	WEDGE ANCHOR
<u> </u>	INSIDE DIAMETER	WD	WOOD
	JOIST	W/O	WITHOUT
	LENGTH	WP'G	WATERPROOFING
	LONG	WTW WWF	WALL TO WALL
	LEFT HAND	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	WELDED WIRE FABRIC WELDED WIRE MESH

ABREVIATIONS

ANCHOR BOLT	LW	LIGHT WEIGHT
ADDENDUM	MAS	MASONRY
ARCHITECT/ENGINEER	MECH	MECHANICAL
ARCHITECT	MFR	MANUFACTURER
AT	MIN	MINIMUM
BUILDING	MISC	MISCELLANEOUS
BLOCK	MOR	MORTAR
BLOCKING	N	NORTH
BEAM	(N)	NEW
BOUNDARY NAILING	N/A	NOT APPLICABLE
BOTTOM OF FOOTING	MB	MACHINE BOLT
BEARING PLATE	NIC	NOT IN CONTRACT
	_	
BEARING	NO	NUMBER
BASEMENT	NTS	NOT TO SCALE
CENTER TO CENTER	OC	N CENTER
CUBIC FOOT	OD	OUTSIDE DIAMETER
CAST IN PLACE	OPG	OPENING
CONTROL/ CONSTRUCTION JOINT	OPP	OPPOSITE
CONCRETE MASONRY UNIT	OSB	ORIENTED STRAND BOARD
COLUMN	OWJT	OPEN WEB JOIST
CONCRETE	PAR	PARALLEL
CONSTRUCTION	PBD	PARTICLE BOARD
CONTINUOUS	PCC	PRECAST CONCRETE
COMPLETE PENETRATION WELD	PCF	POUNDS PER CUBIC FOOT
DEPRESSED	PFT	PREFAB TRUSS
DETAIL	PL	PLATE PLF POUNDS PER LIN
DOUGLAS FIR	PRM	PERIMETER
DIAMETER	PSF	POUNDS PER SQUARE FOOT
DIMENSION	PSI	POUNDS PER SQUARE INCH
DEAD LOAD	PT	PRESSURE TREATED
DOWN	RD	ROOF DRAIN
DRAWING	REINF	REINFORCED
EACH WAY	REV	REVISED OR REVISION
EAST	S	SOUTH
EXISTING	SAD	SEE ARCH DWGS
EACH	SC	SOLID CORE
— · · · · ·		
EACH FACE	SCH	SCHEDULE
EXPANSION JOINT	SEC	SECTION
ELEVATION	SF	SQUARE FOOT
EDGE NAILING	SHT	SHEET
ENGINEER OF RECORD	SIM	SIMILAR
EQUAL	SPEC	SPECIFICATIONS
EACH SIDE	SP	STANDARD PIPE
FACE BRICK	SQ	SQUARE
FINISH FLOOR ELEVATION	STL	STEEL
FIELD NAILING	STD	STANDARD
FOUNDATION	STRUCT	STRUCTURAL
FACE OF BLOCK	SUS	SUSPENDED
FACE OF CONCRETE	SW	SHEAR WALL
FACE OF STUD	SYM	SYMMETRICAL
FULL-PENETRATION WELD	T&G	TONGUE AND GROOVE
FOOTING	THK	THICK
GAGE	TOB	TOP OF BEAM
GALVANIZED	TOS	TOP OF STEEL
GENERAL CONTRACTOR	TOW	TOP OF WALL
GLUED LAMINATED BEAM	TSL	TOP OF SLAB
HOLLOW CORE	TYP	TYPICAL
HEADER	UNO	UNLESS NOTED OTHERWISE
HOLLOW METAL	VERT	VERTICAL
HORIZONTAL	VIF	VERIFY IN FIELD
HOLLOW STRUCTURAL STEEL	W	WEST
HEIGHT	W/	WITH
HEATING, VENTILATING, AN A/C	WA	WEDGE ANCHOR
INSIDE DIAMETER	WD	WOOD
JOIST	W/O	WITHOUT
LENGTH	WP'G	WATERPROOFING
LONG	WTW	WALL TO WALL
LEFT HAND	WWF	WELDED WIRE FABRIC
LIVE LOAD	WWM	WELDED WIRE MESH
LAMINATED VENEER LUMBER	XSP	EXTRA STRONG PIPE
	XXSP	DBL-FXTRA STRONG

DBL-EXTRA STRONG

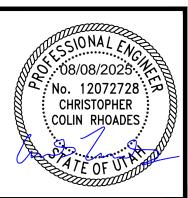




CONTRACTOR TO VERIFY ALI CONDITIONS & DIMENSIONS ARCH D 24X36 SHEET SIZE:

ARI	<u>-AS</u>
2ND FLOOR SQ. FT.	2904
MAIN FLOOR SQ. FT.	1899
BASEMENT SQ. FT.	1
COLD STRG. SQ. FT.	-
SUSP. SLAB SQ. FT.	-
BONUS SQ. FT.	-
DECK SQ. FT.	-
ADDITION SQ. FT.	<u></u>
LIVING SPACE ABV. GRADE	
TOTAL SQ. FT.	
	•

8/1/2025



ROJ. ENGINEER: -

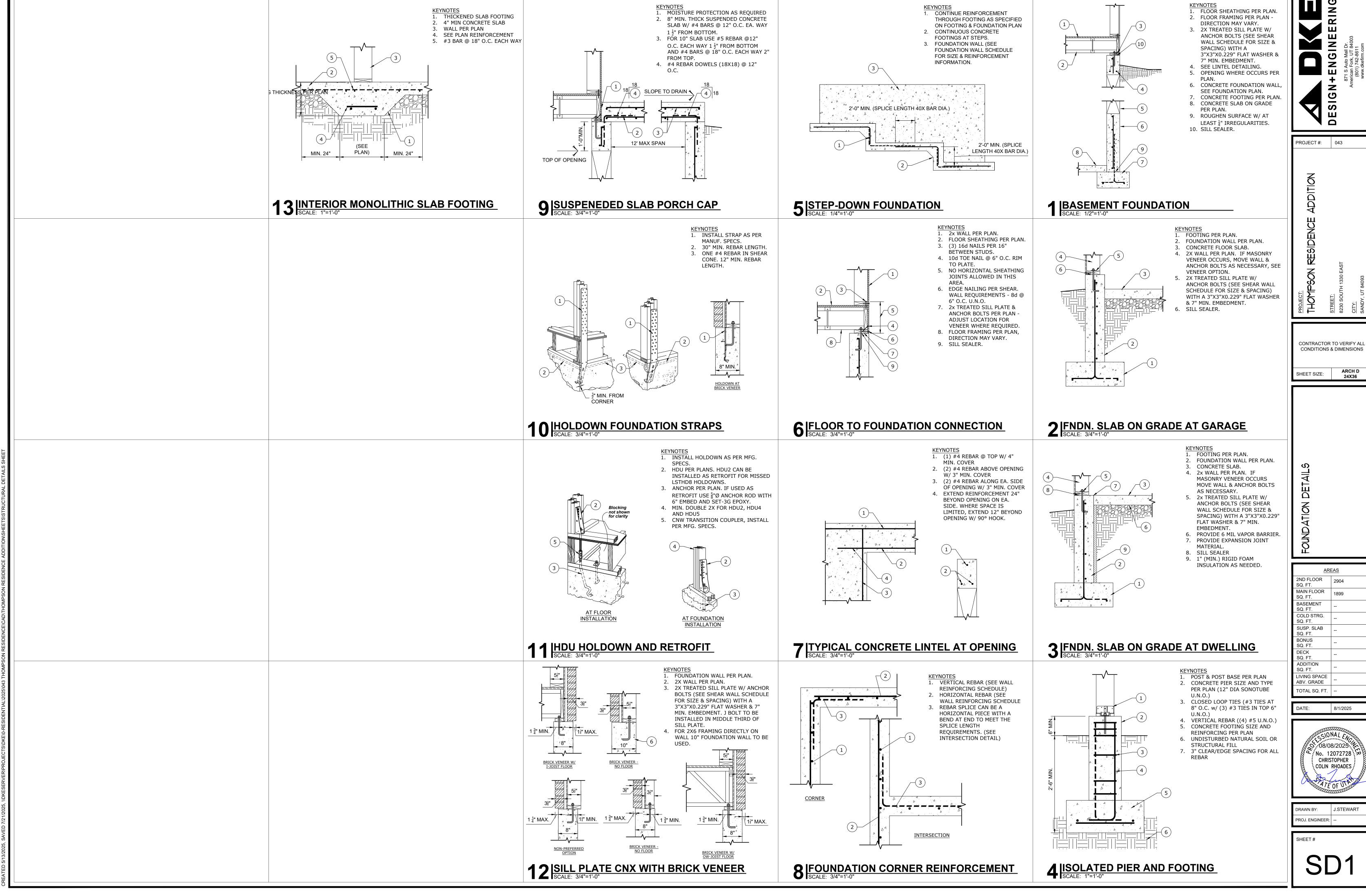
RAWN BY: J.STEWART

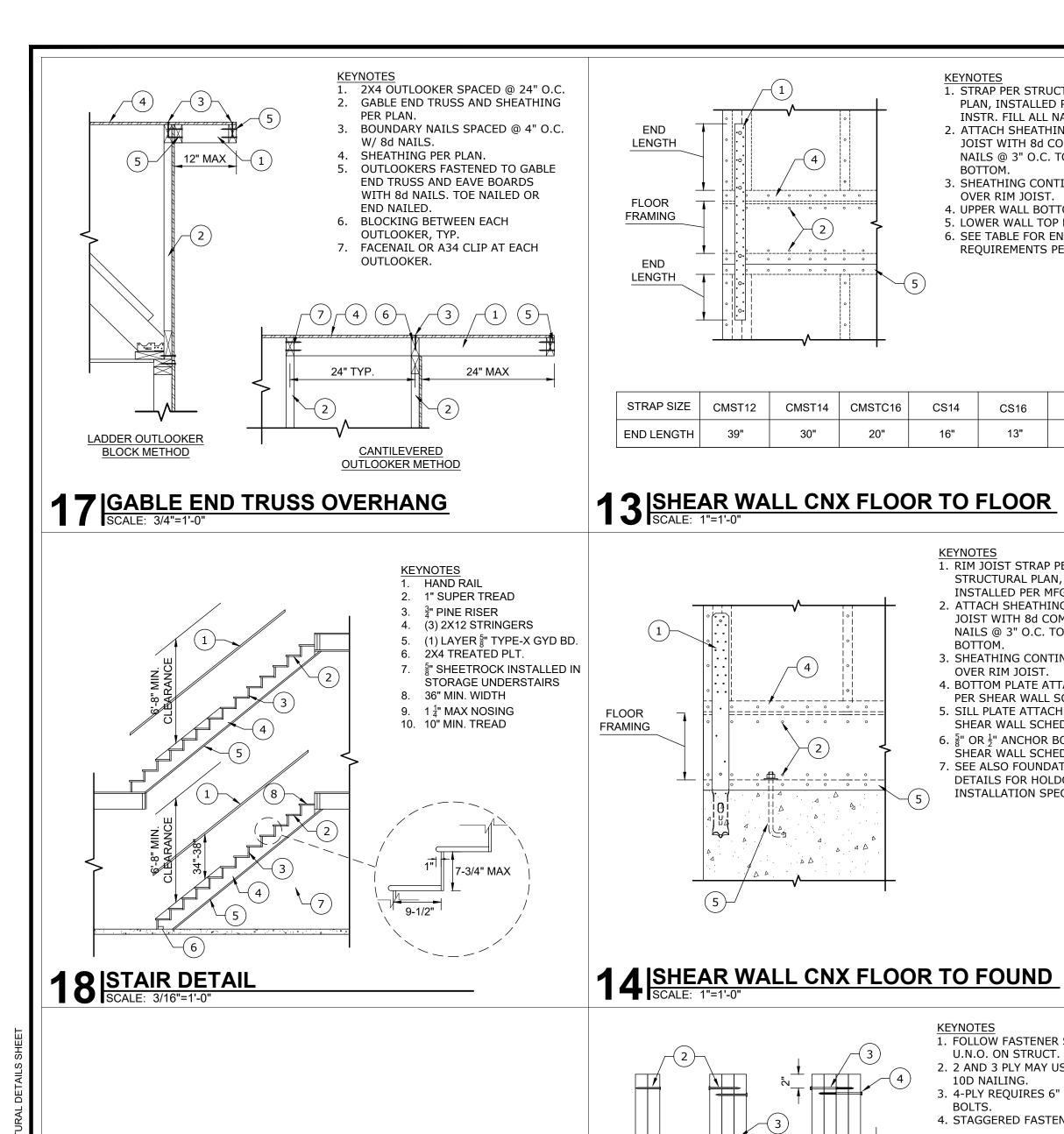
ATTENTION !

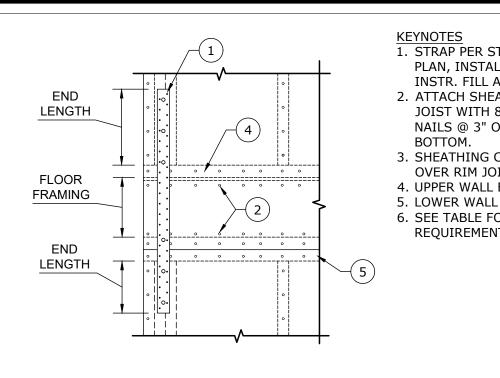
IT IS IMPORTANT FOR THE GENERAL CONTRACTOR TO UNDERSTAND THAT IT IS HIS/HER RESPONSIBILITY TO BE SURE THIS PROJECT IS CONSTRUCTED IN FULL COMPLIANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. THE PLANS ARE NOT ALL INCLUSIVE OF ALL MINIMUM CODES AND ORDINANCES. THIS FACT DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ALL MINIMUM STANDARDS. NO OMISSION FROM THESE PLANS GIVES PERMISSION FOR VIOLATION OF ANY CODE OR ORDINANCE. NO APPROVAL EVER GRANTS PERMISSION TO VIOLATE ANY CODE OR TOWN

STATE BUILDING CODES: 2021 IRC, 2021 IMC, 2021 IPC, 2020 NEC, 2021 IFGC, 2021 IBC, 2021 IFC, & 2015 IECC (MEC) AND ALL UTAH STATE AMENDED CODES.

THE GREATEST EFFORT HAS BEEN MADE TO DRAW THESE PLANS WITHOUT ERROR, (HOWEVER) THERE IS NO GUARANTEE THAT THESE PLANS ARE WITHOUT ERROR, THE DESIGNER & DRAFTSMAN ARE TO BE HELD HARMLESS OF ANY FINANCIAL LIABILITY RESULTING FROM ERRORS IN THESE PLANS. ANY ONE USING THESE PLANS FOR CONSTRUCTION OF BUILDING, ACCEPTS FULL RESPONSIBILITY. (CHECK PLANS CAREFULLY BEFORE CONSTRUCTION.)







CMST14 CMSTC16

30"

================

STRAP SIZE

END LENGTH

FLOOR

CMST12

<u>3 - PLY</u>

FASTENER

TYPE

10d

½" A307

THRU BOLT

SIMPSON SDS

<u> 2 - PLY</u>

			`					1121110125
		/ (1)					 STRAP PER STRUCTURAL
								PLAN, INSTALLED PER MFG.
, [v –			•		INSTR. FILL ALL NAIL HOLES.
.,	3							2. ATTACH SHEATHING TO RIM
`∦∙				_		•		JOIST WITH 8d COMMON
, :,	$\cdot \cdot $		_	4				NAILS @ 3" O.C. TOP AND
•				·				воттом.
· :	$ \cdot $		/			•		3. SHEATHING CONTINUOUS
·].	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		0	0	0		0	OVER RIM JOIST.
<u>-</u> -1•	- 5							A LIDDED WALL DOTTOM DLATE

TO RIM MON AND 4. UPPER WALL BOTTOM PLATE. 5. LOWER WALL TOP PLATE.

6. SEE TABLE FOR END LENGTH REQUIREMENTS PER STRAP.

KEYNOTES

1. RIM JOIST STRAP PER

STRUCTURAL PLAN,

INSTALLED PER MFG. INSTR.

2. ATTACH SHEATHING TO RIM

JOIST WITH 8d COMMON

NAILS @ 3" O.C. TOP AND

4. BOTTOM PLATE ATTACHMENT

5. SILL PLATE ATTACHMENT PER

SHEAR WALL SCHEDULE.

6. $\frac{5}{8}$ " OR $\frac{1}{2}$ " ANCHOR BOLT PER SHEAR WALL SCHEDULE. 7. SEE ALSO FOUNDATION

DETAILS FOR HOLDOWN INSTALLATION SPECS.

1. FOLLOW FASTENER SCHEDULE

U.N.O. ON STRUCT. PLANS

2. 2 AND 3 PLY MAY USE THE

4. STAGGERED FASTENER.

10D NAILING.

PER SHEAR WALL SCHEDULE

3. SHEATHING CONTINUOUS

OVER RIM JOIST.

				4 3	
					•
CS14	CS16	CS20			
			1		

TYPICAL

KEYNOTES 1. FLOOR JOIST PARALLEL TO

FOUNDATION WALL.

2. FULL HEIGHT JOIST BLOCKING IN FIRST (2) BAYS AT 24" O.C. U.N.O. 3. FLOOR SHEATHING PER PLAN. 4. 10d NAILS AT 4" O.C. TO BLOCKING 5. ANCHOR BLOCK TO SILL PLATE W/ (4)

(2) 16d TOE NAILS. '. 2X6 LAID FLAT - ALIGN WITH FULL DEPTH BLOCKS.

8. ATTACH 2X6 TO SILL PLATE WITH (4) 16d NAILS EACH BLOCK U.N.O. 9. ANCHOR BOLT AND SILL PLATE PER

EDGE NAILING AND SPACING

PER SHEAR WALL SCHEDULE

ANCHOR BOLT AND SPACING

AT SILL PLATE PER SHEAR

4. HOLDOWN IF REQUIRED PER

5. (2) 2X STUDS AT SHEAR WALL

KEYNOTES

1. STRAPS WITH SOLID

BEYOND OPENINGS

FLAT BLOCKING.

HOLDOWN PER

SEE SHEAR WALL

SCHEDULE FOR

AND SPACING.

6. SEE SHEAR WALL

SCHEDULE FOR

NAILING PATTERN.

ANCHOR BOLT SIZE

SHEAR WALL

SCHEDULE.

SEE SHEAR WALL

BLOCKING

EXTENDING 2'

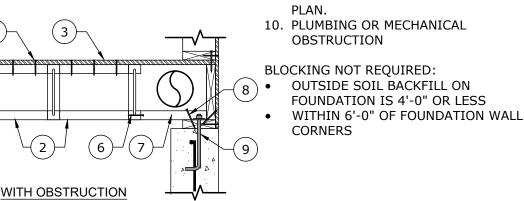
SHEAR WALL SCHEDULE

WALL SCHEDULE

6. 2X STUDS @ 16" O.C.

FIELD NAILING @ 12" O.C.

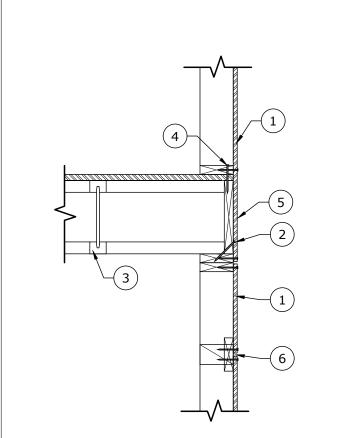
10. PLUMBING OR MECHANICAL



9 FLOOR BLOCKING AT FOUNDATION SCALE: 3/4"=1'-0"

SEE STRUCT. PLAN FOR

SHEAR WALL EXTENT



6 WALL CONNECTION AT FLOOR SCALE: 3/4"=1'-0"

-(8)

5 TYPICAL WOOD HEADER FRAMING SCALE: 1"=1'-0"

1. SHEAR WALL W/ SHEATHING AND EDGE NAILING PER SW SCHEDULE RIM PER PLAN W/ 10d TOE NAILS AT

 $\frac{\text{KEYNOTES}}{1. \quad \text{FOR TRIMMER QTY. SEE COLUMN}}$

TOGETHER W/ 10d COMMON

FASTEN TOGETHER W/ FACE

NAILING 10d COMMON NAILS @

TOP AND BOTTOM PLATE CONFIG.

PER CONTRACTOR U.N.O. ON

CONTINUOUS WALL TOP PLATE. 8. CRIPPLE HEIGHT MIN. 12" U.N.O.

3. FOR THREE OR MORE PLIES:

4. SEE PLAN FOR TRIMMER AND

SEE PLAN FOR HEADER SIZE

SCHEDULE.

2. FOR TWO PLY: FASTEN

NAILS @ 12" O.C.

8" O.C. STAGGERED

KING REQUIREMENTS.

6" O.C. TO TOP PLATE. 3. FLOOR JOIST SIZE, TYPE AND ORIENTATION PER FRAMING PLAN. 4. (3) 16d NAILS PER 16" BTWN STUDS 5. NO HORIZONTAL SHEATHING

JOINTS ALLOWED IN THIS REGION 6. HORIZONTAL SHEATHING JOINT AT BLOCKING AS ALTERNATE.

KEYNOTES

1. FLOOR SHEATHING GLUED AND

2. (3) 10d EACH BLOCK TYP. U.N.O.

4. WALL SHEATHING NAILED PER

SHEAR WALL SCHEDULE.

5. NO HORIZONTAL SHEATHING.

7. I-JOIST BLOCK TO MATCH FLOOR

JOIST w/ (3) 10d NAILS EACH

BLOCK TO PLATE TYP. U.N.O.

. JOIST WEB STIFFENER REQ'D IF

. SILL PLATE AND ANCHOR BOLT SIZE

AND SPACING PER SHEAR WALL

NOTED ON FRAMING PLAN.

3. (3) 16d NAILS PER 16" BTWN STUDS

JOINTS ALLOWED IN THIS REGION.

NAILED PER PLANS.

6. EDGE NAILING

REQM'NTS.

11-7/8" - 20" JOISTS; 6" DIAMETER

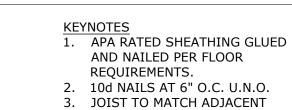
DO NOT CUT FLANGES.

MAXIMUM FOR 9-1/2" JOISTS OR FOR

BLOCKING PANELS LESS THAN 12" LONG.

B" DIA. MAX HOLE IN BLOCKING WEB FOR

1 DECK AND LEDGER CONNECTION SCALE: 3/4"=1'-0"



ON-CENTER SPACING

1. 2X LEDGER PER PLAN. 3 \(\frac{5}{8}\)" OR 5"
LEDGERLOK. FASTENER TIP TO EXTEND

DECK JOIST AND HANGER PER PLAN.

BEYOND FACE OF RIM TO FULLY

FLOOR JOIST SIZE, TYPE AND

DIRECTION PER FRAMING PLAN.

4. 1" MIN. THICKNESS LSL OR OSB RIM

BOTH SIDES 2'-0" IN LENGTH.

FLASHING PER CODE.

STAGGER FASTENERS

IN 2 ROWS U.N.O.

FASTENER PLACEMENT

USE SIMPSON DTT1Z OR DTT2Z DECK

REINFORCE WEB OF JOISTS AT DTT2

ANCHOR LOCATIONS WITH 7/16 OSB

 $5\frac{1}{2}$ " MIN. FOR 2X8

 $6\frac{1}{2}$ " MIN. FOR 2X10

 $7\frac{1}{2}$ " MIN. FOR 2X12

FLOOR FRAMING. 16d NAILS AT 6" O.C. U.N.O. 5. BLOCK BETWEEN JOISTS TO MATCH TYPICAL FLOOR

RING

PROJECT #: 043

CONTRACTOR TO VERIFY ALI CONDITIONS & DIMENSIONS

<u>AREAS</u>

8/2/2025

2ND FLOOR 2904

MAIN FLOOR

BASEMENT

COLD STRG.

SUSP. SLAB

SQ. FT.

SQ. FT.

SQ. FT. BONUS

SQ. FT.

SQ. FT.

SHEET SIZE:

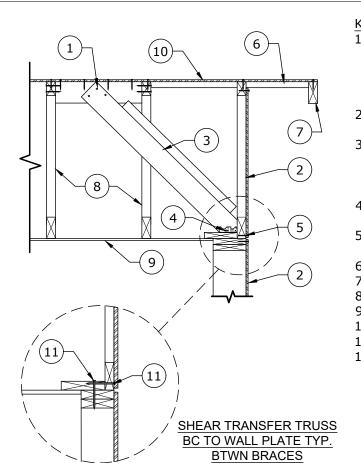
ARCH D 24X36

FRAMING.

JOIST PARALLEL. TO WAL

JOIST PERP. TO WALL

2 | FLOOR TO BEARING WALL CONNECTION | SCALE: 3/4"=1'-0"



KEYNOTES

1. 2X BLOCK BETWEEN TRUSSES AT UPPER END OF BRACE. END NAIL INTO BLOCK W/ (2) 16d. LAP BRACE ONTO BLOCK & NAIL W/ (3) 16d.

APA RATED SHEATHING PER SHEAR WALL REQUIREMENTS. 2X4 DIAGONAL BRACE AT 6'-0" O.C. MAX. BRACES OVER 6'-0" LONG USE (2) 2X4 T-BRACE

(SEE DETAIL BELOW). ATTACH BRACE TO 2X6 NAILER W/ SIMPSON A35 OR GBC.

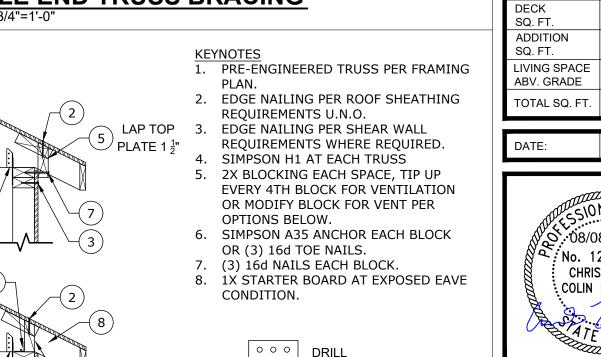
BOUNDARY NAILING PER SHEAR WALL RQMTS. OUTLOOKERS EAVE BOARD

TRUSSES PER PLAN CEILING SHEATHING 10. ROOF SHEATHING PER PLAN 11. 16d NAILS AT 8" O.C. 12. 16d NAILS AT 12" O.C.

ACCEPTABLE VENTILATION METHODS
AT SHEAR BLOCKING

4 TRUSS TO WALL CONNECTION
SCALE: 1/2"=1'-0"

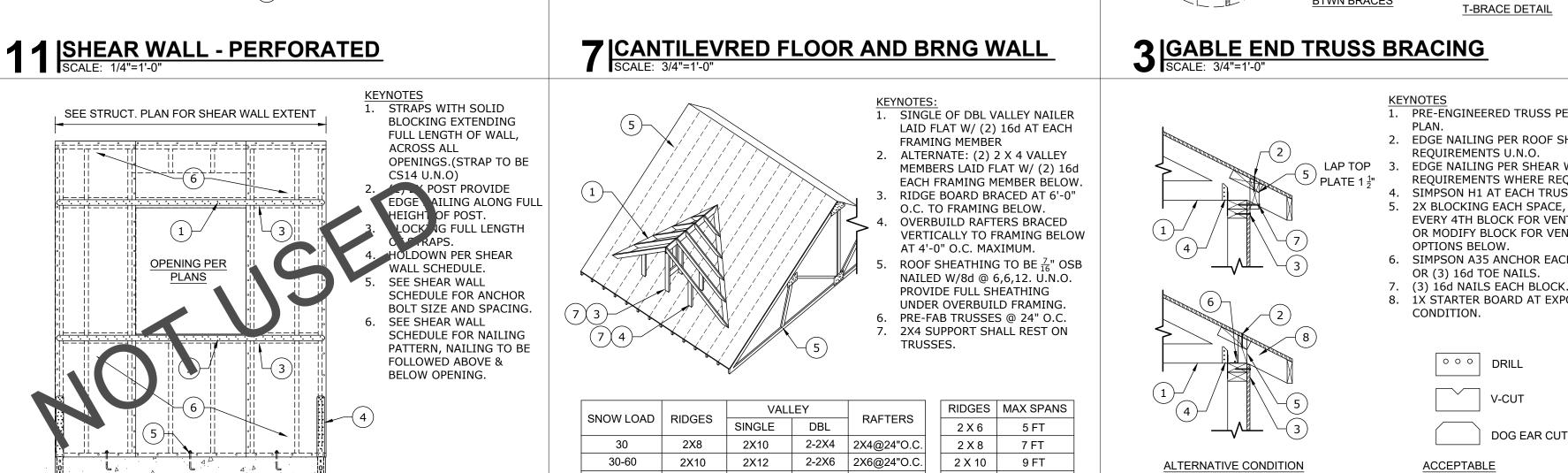
PROJ. ENGINEER: --



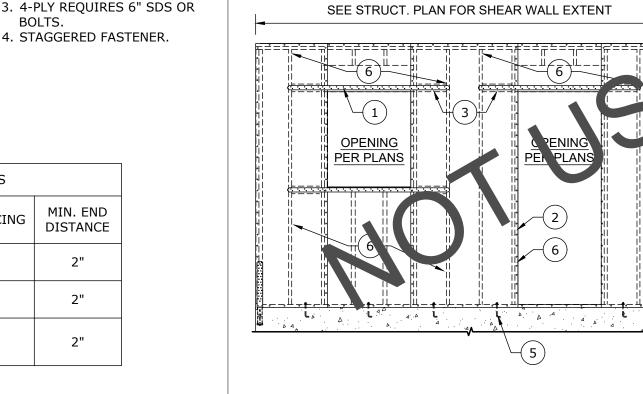
SSIONAL EN 08/08/2025 No. 12072728 🞾 CHRISTOPHER COLIN RHOADES : OOO DRILL J.STEWART DRAWN BY:

V-CUT DOG EAR CUT

SHEET# SD2

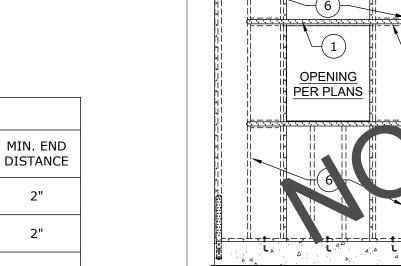


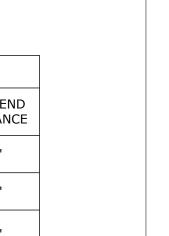
2 X 12 10 FT



OPENING PER

10 SHEAR WALL - SEGMENT SCALE: 1/2"=1'-0"





15 MULTI - MEMBER LVL BEAM CONNECTION SCALE: 1"=1'-0"

<u>4 - PLY</u>

NUMBER

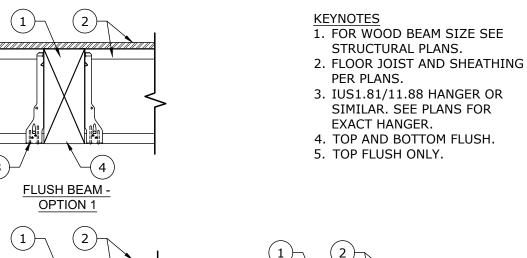
OF ROWS

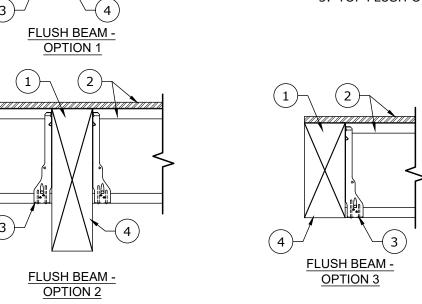
LVL NAILING PATTERNS

O.C. SPACING

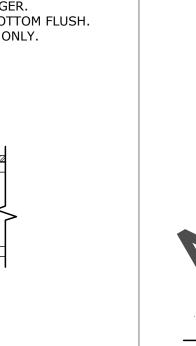
24"

24"









4.4 12 SHEAR WALL - FORCE TRANSFER SCALE: 3/8"=1'-0"

8 ROOF OVERBUILD FRAMING SCALE: NTS

2X12 2X14 2-2X8 2X8@24"O.C.

60-100