PROJECT NAME

Shluker Residence

Back Nine, Lot 5 — Summit County, Utah

FRONT PERSPECTIVE

SHEET INDEX

PROJECT INFORMATION

OWNER:
Steve & Susan Shluker

DESIGNER:
Inouye Design
Ph. 801-373-0909
1443 West 800 North ste. 203
Orem, Utah 84057

CONTRACTOR:

STRUCTURAL ENGINEER:
Acute Engineering
PH. 8012299020
744 S 400E Orem, Utah
84097

GEOTECHNICAL ENGINEER:

INTERIOR DESIGNER:

DESIGN CRITERIA

Governing Structural Codes:
2015 IBC, 2015 IRC, Utah R156-56

Location:
Lat 40.766 Long -111.581 Elev. 6405 ft.

Gravity Loads:
Roof DL: 15 psf
Roof LL: 20 psf (Pg = 300 psf)
Floor DL: 12 psf
Floor LL: 40 psf
Walls: 10 psf (interior), 12 psf (exterior)

Seismic:
Ss = 0.62 S1 = 0.22 SDS = 0.54
Design Category: D0

Wind:
105 mph (V ult), Exposure C

Foundation:
Bearing capacity 1500 psf
(Assumed; field verify)

Frost Depth:
40 inches (Assumed; field verify)

SQUARE FOOTAGE

TERRACE LEVEL

Living Space	3651 SF
Storage	434 SF

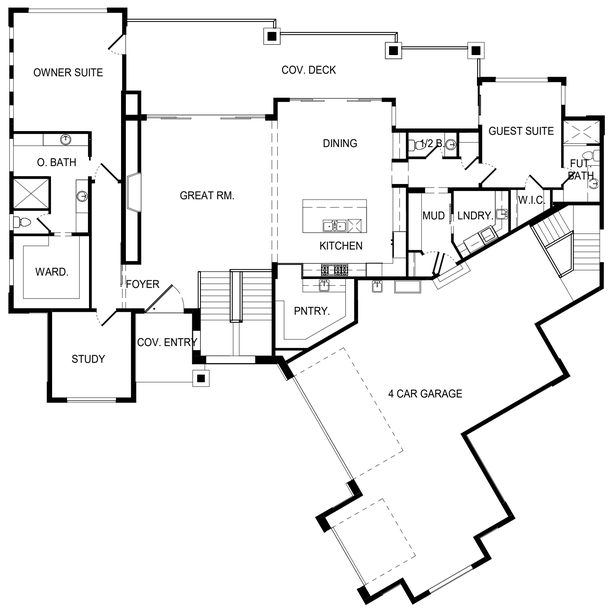
MAIN LEVEL

Garage Space	1485 SF
Living Space	3034 SF

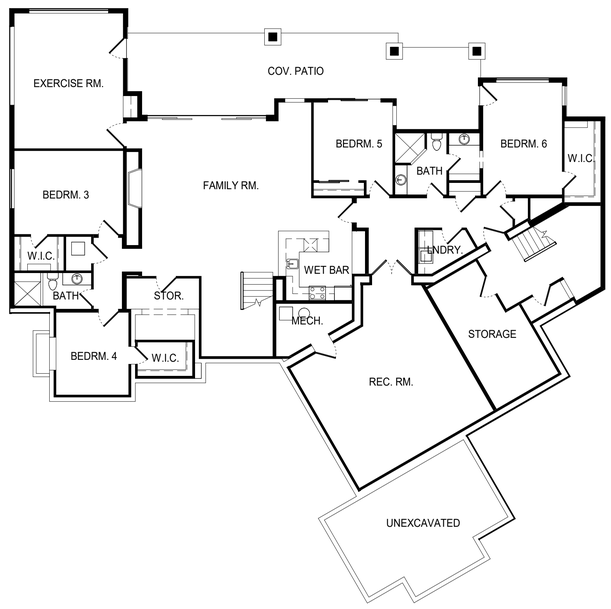
TOTAL

Garage Space	1485 SF
Living Space	6686 SF
Storage	434 SF

MAIN LEVEL SCHEMATIC



UPPER LEVEL SCHEMATIC



Revisions	
Date	Description

INOUYE DESIGN
1443 W 800 N #203 Orem, Utah 84057 Ph: 801.373.0909

Shluker Residence

Back Nine, Lot 5 — Summit County, Utah

Project 21029

03 August 2021

C1.1

COVER SHEET & INDEX

CONSTRUCTION SPECIFICATIONS & NOTES

GENERAL NOTES:

1) All work shall conform to the minimum standards of the International Building Code, any other regulating agencies which have authority over any portion of the work, and the codes and standards listed in these notes and specifications. All specifications noted shall be the latest approved revision or edition. The General Contractor shall review and approve all shop drawings prior to submitting them to the Designer or Engineer. A reviewed copy of all shop drawings shall be kept at the construction site for reference. The shop drawing review shall not relieve the General Contractor of any responsibility for completion of the project according to the contract documents.

2) Structural drawings and specifications represent the finished structure, not the method of construction. The General Contractor shall be responsible for all measures necessary to protect the structure during construction. These measures include, but are not limited to bracing, shoring, etc. Shoring & bracing shall remain in place until all permanent members are in place and connections complete. Observation visits to the site by the Engineer or his representative shall not include inspection of these items.

3) Construction materials shall be spread out if placed on framed floors or roof. Loads shall not exceed the design live load per sq. ft. Provide adequate shoring or bracing where structure has not attained design strength.

4) It shall be the responsibility of the General Contractor to coordinate with all trades, & all items that are to be integrated into the structural system.The civil, structural, mechanical, plumbing, and electrical drawings are supplementary to the architectural drawings. it shall be the responsibility of the contractor to check with the architectural drawings before proceeding withinstallation of civil, structural, mechanical, plumbing, and electrical work. should there be any discrepancies between the architect's and the consulting engineer's drawings and specifications that would cause a conflect. It shall be corrected by the contractor at his expense and at no additional expense to the owner or architect. It is the responsibility of the contractor to examine all conditions prior to submitting bids or commencing with construction. Discrepancies in the drawings or between the drawings and actual field conditions shall be reported to the architect and to the owner.

5) See Architectural drawings for the following: (U.N.O.)
- -Size and location of door, window, floor, and roof openings.
- -Size and location of all interior and exterior non-bearing partitions
- -Size and location of all curbs, drains, depressed areas, slopes, changes in level, grooves, chamfers, inserts, etc.
- -Floor and roof finishes.
- -Dimensions not shown on structural drawings.

6) See Mechanical and Electrical drawings for the following (U.N.O.)
- -Pipe runs, sleeves, trenches, hangers, wall and slabs, openings, etc.
- -Electrical conduits, boxes, and outlets in walls and slabs.
- -Concrete insert requirements for mechanical and electrical.
- -Size and location of machine or equipment bases, anchor bolt requirements, etc.

7) Openings larger than 6" shall not be placed in slabs, decks, walls, etc., unless specifically detailed on the structural drawings. Notify the Structural Engineer when drawing by others who above conditions located in structural members.

8) The engineer shall be notified forty-eight hours in advance prior to any of the following:
- -Placing any concrete.
- -Closing any forms.
- -Grouting any masonry.
- -Completing the nailing of any sheathed wall or deck.
- -Completing the welding of steel decking.

9) Observation visits by the Engineer or his representative shall neither be construed as inspection nor approval of construction.

10) All symbols and abbreviations used on the plans are considered to be construction standards. if the contractor has questions regarding abbreviations of thier exact meaning, the architectect shall be notified for clarification.

11) Details marked shall apply in all cases unless specifically indicated otherwise.

12) All rubbish and debris resulting from demolition and/or new work shall be recycled and/as disposed of off-site and shall not be allowed to accumulate.

13) Offset studs where required so that finish wall surface will be flush. If structural panels are required on a wall plane, the entire wall plane shall be furred or finished flush.

14) Install metal corner beads at all exposed wallboard edges. Install casing beads wherever wallboads, plaster, ect. abuts a dissimilar finish matterial and provide sealant as required.

15) Contractor shall provide and install all stiffeners, bracing, back-up plates, and supporting brackets required for the installation of all casework, stair railing, toilet accessories, partitions, and of all mounted or suspended mechanical, electrical, or misc. equipment.

16) Door sizes shown on plan are opening sizes. allowance for thresolds, ect., shall be taken off the doors. Doors and frames shall be reinforced, where required for closures, stops and hardware.

17) All doors shall be provided with a seal, astral, or baffle at the head and sill to prevent air leakage

18) All construction shall be preformed in accordance with the state construction safety regulations.

19) All gypsum wall board required by IRC R702.3

20) Pools, spas, wall fences, patio covers, retaining walls, and other freestanding structures require separate review and permits.

21) All "or equal" substitutions must be submitted to, and approved by the city building official prior to installation of the time.

22) Developer/contractor/ owner resonsible for the verification of existing curb location from the property line.

23) Inspection required for Stucco Installation.

24) A permanent certificate shall be posted on or in the electrical distribution panel listing the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, and/or floor) and ducts outside the conditioned spaces; U-factors of windows and the solar heat gain coefficient of windows. The type and efficiency of heating, cooling and service water heating equipment shall also be listed. Per IRC N1101.9

25) Fire block stud spaces at soffits, floor and ceiling joist lines, at 10' vertically and horizontally, and at any other locations not specifically mentioned which could afford passage for flames, Per IRC R302.11

26) All plumbing installations shall comply with 2015 IRC

27) All mechanical installations shall comply with 2015 IRC & IFGC

CONCRETE:

1) All phases of work pertaining to the concrete construction shall conform to the 'Building Code Requirements For Reinforced Concrete' (ACI 318) and the 'Specifications for Structural Concrete For Buildings' (ACI 301) latest approved editions, with modifications as noted in the drawings or specifications.

2) Concrete mixes shall be designed by a qualified testing laboratory and approved by the Structural Engineer. All concrete in contact with the earth shall contain Type I Portland cement unless noted otherwise (U.N.O.). All concrete shall be air entrained by 6% = -1%.

3) Calcium chloride shall not be used.

4) Concrete shall have the following minimum compressive strengths within 28 days after placement (UNO):

Footings	3,000 psi
Foundations	4,000 psi
Interior Flatwork	4,000 psi
All Exterior Concrete	4,000 psi

5) Maximum concrete slump shall not exceed four inches.

6) All concrete shall be thoroughly cured according to ACI recommendations. Follow ACI 306R "Cold Weather Concreting" and ACI 305 "Hot Weather Concreting" for all concrete and masonry work when required by current weather conditions.

7) Conduits and pipes embedded in concrete shall conform to the requirements in Section 1906.3 of Volume, II, Uniform Building Code.

8) No aluminum or product containing aluminum or any metal injurious to concrete shall be embedded in concrete.

9) Interior concrete slabs-on-grade shall be a minimum of 4 inches in thickness UNO, with sawn or preformed joints at maximum 20 foot dimensions each way. Exterior concrete slabs-on-grade shall have construction joints at not more than 10 to 12 feet on center each way. Sawn joints shall be 1/4 slab thickness in depth and shall be cut as soon as surface allows and not more than 12 hours after concrete placement. Construction joints shall be made and located as to least impair the strength of the structure and shall be approved by the Architect/Engineer. Provide 2" x 4" keyway in all vertical and horizontal joints. All reinforcing bars shall be continuous through joints (UNO).

10) Clear coverage of concrete over outer reinforcement bars shall be as follows: (UNO)
- -For concrete placed directly against earth, 3" cover
- -For concrete surfaces exposed to weather, 1 1/2" cover.
- -For concrete surfaces exposed to ground after removal of forms, 2" cover
- -For concrete surfaces exposed to ground or weather: slabs and walls, 3/4" cover; joists or waffle beams, 1" cover; beams, piers, and columns, 1 1/2" cover.

11) Where concrete girths, beams, or walls are continuous around a corner, add corner bars to lap 40 bar diameters from each direction. Reinforcing bars in the interior faces shall extend to within 2" of the outer face and shall terminate in a standard hook or bend.

12) Reinforce all concrete walls as follows: (U.N.O.)

Thickness	Horiz. Reinf.	Vert. Reinf.
6" wall	#4 at 16" o.c.	#4 at 18" o.c.
8" wall	#5 at 15" o.c.	#4 at 18" o.c.
10" wall	#5 at 12" o.c.	#4 at 16" o.c.
12" wall	#4 at 16" o.c. - e.f.	#4 at 18" o.c. - e.f.
14" wall	#5 at 18" o.c. - e.f.	#4 at 18" o.c. - e.f.

13) Place vertical steel in center of wall except 12 in. and larger, then place one curtain of steel at each wall face (e.f.)

14) Reinforcing around openings in concrete walls, unless otherwise noted and in addition to the regular wall reinforcement, to be at least one #5 horizontal bar for each 5" of wall thickness or fraction thereof with a minimum of (2) #5 bar placed 2" above the opening. The minimum depth of wall (in inches) over the opening shall be 1/2 times the span of the opening (in feet) or 12", whichever is greater. At the sides and across the bottom of openings, add two #5 bars that extend 24" beyond the corners of the opening.

15) Bars shall never be smaller than scheduled wall reinforcing. Reinforcing dowels from the footings shall be the same size and spacing as the vertical reinforcement in the wall above. Run dowels 40 bar diameters into wall and same into footings. Position dowels before placing concrete.

16) Around openings in concrete slabs, unless otherwise scheduled, add reinforcing equivalent to bars cut by opening. The bars parallel to the main reinforcement shall run the full length of the span. The bars parallel to the temperature steel shall run 40 bar diameters each way beyond the opening.

17) Provide expansion joints in curb and gutter at 40' on center and at each end of a radiused curb with contraction joints at 10' on center

18) See civil plans for ground elevations, pad elevations, corner elevations, and natural grade.

19) See soils report as prepared by engineer for additional req's during construction

WOOD CONSTRUCTION:

1) All phases of work pertaining to wood framing or wood construction shall conform to the requirements of the 2015 IBC, "INTERNATIONAL BUILDING CODE".

2) All wood beams, joists and columns shall be #2 Douglas Fir (d.f.) grade lumber or better (U.N.O.) Micro-lam beams shall have a minimum allowable bending stress of 2,600 psi.

3) All glue laminated timber members shall have the following minimum stress grade lumber:
1. Bending = 2400 psi
2. Tension = 1200 psi
3. Shear = 190 psi
4. Compression parallel to grain = 1650 psi

4) Glue laminated structural members shall conform to the U.S. Department of Commerce Commercial Standard PS-56 and "AMERICAN INSTITUTE OF TIMBER CONSTRUCTION".

5) All structural plywood shall be Structural I or Structural II grade.

6) All plates or other lumber in contact with concrete or within 6" of earth shall be Foundation redwood all marked or branded by the Redwood Inspection Service or pressure treated for moisture protection.

7) Floor joists shall have all blocking, bracing, bridging, and etc. as recommended by the IBC and the manufacturer.

8) Horizontal edges of wall sheathing shall be blocked with 2" nominal blocking. Edges of floor and roof sheathing shall be blocked and nailed as indicated on drawings.

9) Trusses and/or web joists shall have all blocking, bracing, bridging, and etc. as recommended by the manufacturer.

10) Walls shall run continuous between horizontal support points, unless adequate approved bracing is provided.

11) Nails or other approved sheathing connectors shall be driven flush but shall not break the surface of the sheathing.

REQUIRED MINIMUM NAILING SCHEDULE: (see IBC Table No. 2304.9.1)
- Stud to plates.....toenail 4-8d or end nail 2-16d
- Roof blocking.....toenail 5-8d nails or 1-A35
- Double top plates.....face nail 16" o.c. staggered 1-16d
- Double top plates Lap Splice.....face nail 8-16d nails
- Double studs.....face nail 16d @ 24" o.c.
- Corner stud and angles.....16d @ 24" o.c.
- Rim joist to sill.....toenail 16d @ 6" o.c.
- Joist to sill or girders.....2-10d nails
- Double sole plates together.....face nail 16d @ 8" o.c.
- Bridging to joist.....2-8d toenailed at each end
- Plywood to roof joists, trusses or studs - see nailing schedule

12) Fire and drafts stops shall be provided throughout as required per IRC R502.12

FOUNDATIONS:

1) Footings are designed based on a soil bearing capacity of 1500 psf.

2) The contractor shall provide for the design and installation of all cribbing, sheathing, and shoring required to safely and adequately retain any excavations.

3) Footings shall be placed on undisturbed soil or structural fill. Excavations for footings are to be approved by the Geotechnical Engineer prior to placement of concrete or reinforcing. The Contractor shall give the Geotechnical Engineer 48 hrs notice for site observations. The Geotechnical Engineer shall submit letter of compliance to the Owner and the Structural Engineer. All retaining walls, building walls, pits, etc. must have attained their design strength and/or support prior to backfilling. Exception - if bracing is to be used to support walls and etc. for early backfilling, contractor is responsible for design, permits and installation of such bracing.

4) Excessive wetting or drying of the foundation excavation and the floor slab areas should be avoided during construction.

5) All fill supporting concrete slabs, footings, or etc. shall be moistened and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557 (Modified Proctor). All other fill shall be compacted to a minimum relative compaction of ninety (90) percent of maximum dry density. Compaction testing shall be performed by an approved testing agency and the results submitted to the Structural Engineer. Sufficient field density tests shall be performed to certify building pads as conforming to the specifications.

6) Rebar inspections for foundation walls over 8' high, forms are not to be installed on one side until after the rebar has been inspected and approved.

ARCHITECTURAL SPECIFICATIONS & NOTES

GENERAL NOTES:

1) The contractor shall verify all dimensions & site conditions prior to starting construction. Contractor shall verify verify sizes and locations of all mechanical and electrical pads and bases as well as power or water and drain installations with equipment manifacturers before proceeding with work. changes to accommodate field conditions or substitutions shall be made without additional charge to owner. During construction, the contractor shall field verify all dimensions prior to fabrication or construction in any area. Inouye Design shall be notified of any discrepancies or inconsistencies. All omissions or conflict between the various elements of the working drawings &/or specifications shall be brought to the attention of Inouye Design &/or the structural engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirements as directed by Inouye Design & the engineer without any additional cost to the Owner.
DO NOT SCALE THE WORKING DRAWINGS!

2) The typical details shall be used wherever applicable unless otherwise noted on the drawings. Notes and details on drawings shall take precedence over general notes, typical details, & specifications.

3) The contractor shall investigate the site during clearing, excavation & other earth work operations for filled excavations, buried structures or unnatural soil conditions. If any of these conditions are found, Inouye Design & the geotechnical engineer shall be notified immediately.

4) All construction work shall conform to the minimum standards of locally approved building codes & regulations.

5) Contractor shall be responsible for safety & protection & all rubbish and debris resulting from demolition an/or new work shall be recycled and/or disposed of off-site and shall not be allowed to accumulate.

6) Observation visits to the site by Inouye Design shall neither be construed as inspection nor approval of construction.

7) All fill and back fill shall be compacted to a minimum of 95% of maximum relative density for building construction and 90% for general site work.

8) Grading shall allow for positive drainage (2 percent minimum) away from the building, other footings & foundations, drives, & sidewalks. All downspouts shall drain onto 3 foot long splashblocks sloping away from foundations or into approved storm drain system.

9) All bearing earth to be undisturbed earth or compacted fill. The area on which the fill is placed must be frost-free. The fill shall then be placed in layers not to exceed 8 inches in depth & compacted. All fill & backfill shall be compacted to a minimum of 95% of maximum relative density as per ASTM D depth & compacted. All fill & backfill shall be compacted 1557-78 at optimum moisture.

10) The structure is not stable until all diaphragms, shear walls & associated connections have been made. It is the responsibility of the contractor to design & install all required temporary bracing and shoring. Do not backfill walls until floor at top of walls is in place or adequate temporary bracing is provided.

11) All symbols and abbreviations used on the plans are considered to be construction standards. if the contractor has questions regarding abbreviations of thier exact meaning, the architectect shall be notified for clarification.

12) Minimum headroom clearance at stairs shall be 6'-8" measured vertically from a plane parallel and tangent to the tread nosing to the soffit above at all points.

13) Provide tempered glass as required by IRC code and by other applicable codes.

14) Mechanical ventilation for toilet compartments, bathrooms, and laundry rooms shall be capable of providing 5 air changes per hour per IRC P3201.7

15) Where garage doors with springs occur, the following shall apply: Springs shall be permanently identified, and indicate the maximum recommended stretch. Both springs and containment devices shall bear information stating that they have manufactured in accordance with requirements of the State department of housing and community development.

16) Showers shall be finished to a min. of 72" above drain with surface materials not adversely affected by moisture per IRC P2709. See plans for actual plans.

17) Lighting fixtures in closets are to be a minimum of 18" from shelves.

18) All water heaters shall be provided with seismic straps per IRC P2801.8

19) Pools, spas, wall fences, patio covers, retaining walls, and other freestanding structures require separate review and permits.

20) All "or equal" substitutions must be submitted to, and approved by the city building official prior to installation of the time.

21) Note that all insulation materials shall have a flame-spread rating not to exceed 25 and a smoke density not to exceed 450. IRC R320.2

22) Provide anti-scalding valves at showers and tubs/showers.

23) Developer / Contractor / owner responsible for the verification of existing curb location from property line.

WOOD:

1) All wood beams, joists, and columns shall be #2 Douglas Fir (d.f.) grade lumber or better (U.N.O.)

2) Truss loads shall be as indicated of drawings &/or as shown in structural engineering calculations. Trusses shall be designed for a maximum total load deflection of 1/240 & a maximum live load deflection of 1/360.

3) All truss members shall be #2 Douglas Fir or better.

4) Provide panel joints at all bearing walls and point loads.

5) No joint shall have more than 1/16" average gap between bearing surfaces. All lumber at plates shall be a complete section with no knots or wanes.

6) All trusses are to be engineered by the truss fabricator. Shop drawings are to be submitted to the structural engineer for each truss type. All trusses shall be designed by a registered professional engineer & the Shop drawings must be stamped by the engineer.

7) Truss shop drawings shall include the following:
- A. ICC & C&R 9 certification indicating the allowable plate loads.
- B. Duration factors or stress reduction factors used in the design of the lumber and plates.
- C. Top and bottom chord design loads in psf.
- D. Truss configuration showing lumber species and grades used together with plate size, gauge and location.
- E. Engineer's stamp and signature.
- F. Name and trademark of plate manufacturer, the truss fabricator, and the project name and address.
- G. Computed mid-span deflection for total load and live load.
- H. Forces in each member and indication of whether the member is in tension or compression.

No wood shall be nearer than 8" to earth unless separated by concrete at least 3" in thickness with an impervious membrane installed between the earth and the concrete. This includes decks and siding. Per IRC R317

CONCRETE & REINFORCING:

1) Before concrete is poured, check with all trades to insure proper placement of all openings, sleeves, curbs, conduits, bolts, inserts, etc. relating to work.

2) All reinforcement bars shall be securely anchored to the forms. The minimum spacing of reinforcing bars from surface shall be as follows:
- A. Poured against the earth - 3 inches
- B. Walls - 2 inches
- C. Beams and Columns - 1-1/2 inches
- D. Slabs - 1-1/2 inches

3) All exposed to view concrete shall be stoned smooth while green, or as directed by Inouye Design. No grout plaster shall be permitted.

4) Hardrock aggregates shall conform to ASTM C-33. Their maximum size shall be 3/4" except 1-1/2" may be used for footings.

5) All dowels shall have at least 30 bar diameter embedment. Provide corner bars at ll intersecting corners. Use same size bar & spacing as horizontal wall reinforcing.

6) Formwork not supporting weight of concrete, such as sides of beams, walls columns, & similar parts of the work, may be removed after cumulatively curing at not less than 50 degrees F for 24 hours after placing concrete provided concrete is sufficiently hard to not be damaged by form removal operation, & provided curing & protection operations are maintained.

Formwork supporting weight of concrete, such as beam soffits, joints, slabs & other structural elements, may not be removed in less than 14 days or until concrete has attained 75% of its design minimum compressive strength at 28 days.

Support form facing materials with structural members spaced sufficiently close to prevent deflection. Fit forms placed in successive units for continuous surfaces to be accurately aligned free from irregularities & within allowable tolerances.

7) All concrete shall be properly vibrated in place using internal vibrating rods.

8) Protect freshly placed concrete from premature drying & excessive temperature as per ACI 318 & maintain without drying at a relatively constant temperature for a period of time necessary for hydration of cement & proper hardening.

9) Cold weather curing & protection requirements for concrete shall conform to the requirements of 2015 IRC section R402.2. When depositing concrete at freezing temperature or below, the concrete mix shall have a temperature of at least 50 F but not more than 80 F. The concrete shall be maintained at a temperature of not less than 50 F & in a moist condition for not less than 7 days after placing or as directed by the structural engineer. The use of chemicals or additives to prevent freezing will not be permitted.

GENERAL & KEYED NOTES

INOUYE DESIGN
1443 W 800 N #203 Orem, Utah 84057 Ph: 801.373.0909

Shluker Residence

Back Nine, Lot 5 Summit County, Utah

Project 21029

03 August 2021

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PROJECT NOTES

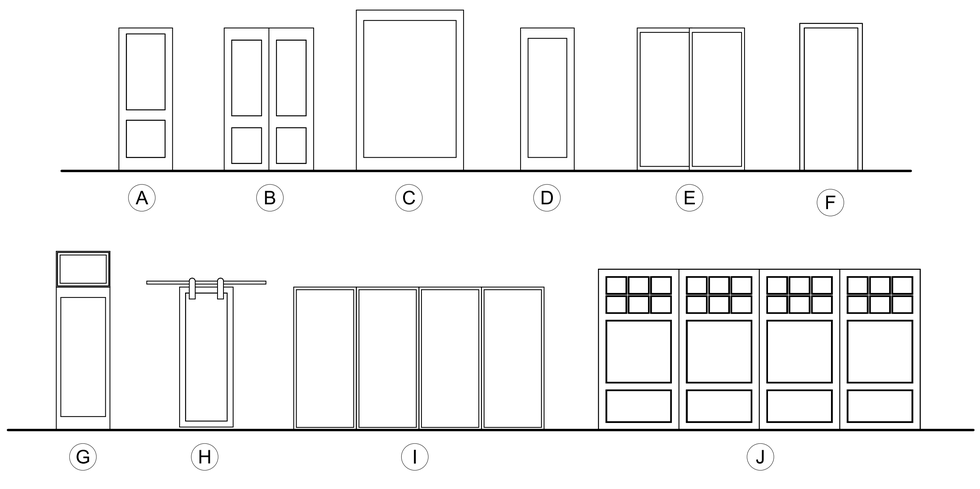
COMPLETE DOOR SCHEDULE

Dr.	Quantity	Width	Height	Style	Swing	Remarks
D1	1	6' - 0"	9' - 0"	C	Pivot	Exterior w/ double paned glass, Pivot door.
D2	7	3' - 0"	8' - 0"	A	Right Hand	
D3	1	3' - 0"	8' - 0"	A	Left Hand	Insulated Metal w/ Self closing hinges
D4	1	18' - 0"	9' - 0"	J	Overhead	Garage Door
D5	1	10' - 0"	9' - 0"	J	Overhead	Garage Door
D6	1	3' - 0"	8' - 0"	H	Barn	
D7	1	2' - 8"	8' - 0"	A	Right Hand	
D8	4	2' - 6"	8' - 0"	A	Right Hand	
D9	1	6' - 0"	8' - 0"	E	Sliding	Exterior w/ double paned glass
D10	1	2' - 4"	8' - 0"	A	Left Hand	
D11	4	2' - 6"	8' - 0"	A	Left Hand	
D12	1	14' - 0"	8' - 0"	I	Sliding	(4) 3'-6" x 8'-0"
D13	1	18' - 0"	9' - 0"	I	Sliding	(4) 4'-6" x 9'-0"
D14	1	3' - 0"	10' - 0"	G	Right Hand	Exterior w/ double paned glass. 3'-0" x 8'-0" w/ 2'-0" transom above
D15	1	3' - 0"	8' - 0"	F	Pocket	
D16	1	3' - 6"	8' - 0"	A	Right Hand	
D18	1	6' - 0"	8' - 0"	B	French	
D19	8	3' - 0"	8' - 0"	A	Left Hand	
D20	1	3' - 0"	8' - 0"	A	Right Hand	Metal w/ Self closing hinges
D21	2	2' - 8"	8' - 0"	A	Left Hand	
D22	1	3' - 0"	8' - 0"	D	Left Hand	Exterior w/ double paned glass
D23	1	6' - 0"	8' - 0"	E	Sliding	Closet sliding wood doors
D24	1	8' - 0"	10' - 0"	E	Sliding	(2) 4'-0" x 10'-0"
D25	1	18' - 0"	10' - 0"	I	Sliding	(4) 4'-6" x 10'-0"
D26	1	3' - 6"	8' - 0"	A	Left Hand	
D27	1	3' - 0"	8' - 0"	D	Right Hand	Exterior w/ double paned glass
D28	1	6' - 8"	8' - 0"	H	Barn	

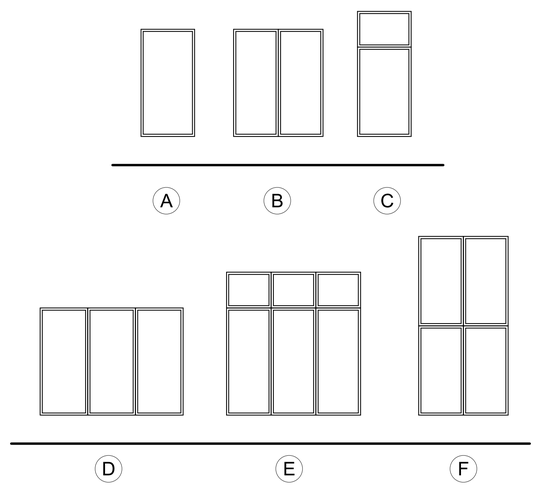
COMPLETE WINDOW SHEDULE

Win.	Quantity	Width	Height	Style	Type	Action	Remarks
W1	7	3' - 0"	8' - 0"	C	Picture	fxd	3'-0" x 6'-0" w/ 2'-0" transom above. Tempered glass
W2	1	7' - 6"	8' - 0"	E	Picture	fxd	(3) 2'-6" x 6'-0" w/ (3) 2'-0" transom above. Tempered glass
W3	1	7' - 6"	5' - 0"	D	Casement	opp., fxd., opp.	(3) 2'-6" x 5'-0"
W4	1	5' - 0"	10' - 0"	F	Picture	fxd	(2) 5'-0" x 5'-0" w/ (2) 5'-0" transom above. Tempered glass.
W5	1	2' - 0"	3' - 0"	A	Casement	fxd	
W6	1	2' - 0"	3' - 0"	A	Casement	opp.	Tempered glass
W7	2	3' - 0"	6' - 0"	A	Casement	fxd	
W8	1	8' - 0"	6' - 0"	D	Casement	opp., fxd., opp.	(3) 2'-8" x 6'-0
W9	5	3' - 0"	2' - 0"	B	Casement	fxd	
W10	4	4' - 6"	2' - 6"	A	Picture	fxd	
W11	2	3' - 0"	8' - 0"	C	Casement	fxd	3'-0" x 6'-0" w/ 2'-0" transom above
W12	2	3' - 0"	8' - 0"	C	Casement	opp	3'-0" x 6'-0" w/ 2'-0" transom above
W13	4	2' - 0"	2' - 0"	A	Casement	fxd	
W14	1	5' - 0"	7' - 0"	F	Casement	opp., fxd.	(2) 2'-6" x 5'-0" w/ (2) 2'-0" transom above. Tempered glass.
W15	1	2' - 6"	7' - 0"	C	Casement	opp.	2'-6" x 5'-0" w/ 2'-0" transom above.
W16	1	4' - 0"	2' - 0"	A	Picture	fxd	
W17	1	7' - 6"	8' - 0"	E	Casement	opp., fxd., opp.	(3) 2'-6" x 6'-0", w/ (3) 2'-0" transom above. Tempered glass
W18	2	2' - 0"	5' - 0"	C	Casement	fxd	2'-0" x 3'-0" w/ 2'-0" transom above
W19	1	2' - 0"	5' - 0"	C	Casement	opp.	2'-0" x 3'-0" w/ 2'-0" transom above. Tempered glass
W20	1	2' - 6"	3' - 6"	A	Casement	opp.	Tempered glass
W21	1	5' - 0"	5' - 0"	B	Casement	opp., fxd.	(2) 2'-6" x 5'-0"
W22	1	6' - 0"	6' - 0"	B	Casement	opp., fxd.	(2) 3'-0" x 6'-0"
W23	1	8' - 0"	8' - 0"	E	Casement	opp., fxd., opp.	(3) 2'-8" x 6'-0 w/ (3) 2'-0" transom above. Tempered glass
W24	1	3' - 0"	8' - 0"	C	Casement	fxd	3'-0" x 6'-0" w/ 2'-0" transom above

DOOR STYLE LEGEND



WINDOW STYLE LEGEND



GENERAL & KEYED NOTES

1. All exterior windows to be double glazed insulated glass u.n.o.
2. Window manufacturer to provide tempered glass as req'd
3. All windows in bedrooms to meet egress requirements as per IRC
4. French door hardware to match other lever handles
5. All doors to have decorative molding as per owner
6. All exterior doors to have security hinges
7. All interior windows to be single glazed
8. All exterior windows to have U-value of .35 or better

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

12 x 18 (sheet size): 1/8"=1'-0"
24 x 36 (sheet size): 1/4"=1'-0"

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C1.3

COMPLETE SCHEDULES

GENERAL & KEYED NOTES

1. Minimum driveway slope to be 2% away from garage (12% maximum)
2. Finish grade & elevations to slope away from house @ minimum 6 in. (5%) for the first 10'
3. All drainage to slope away from residence @ all points to a public utility. Do not allow drainage to go onto any neighboring property by directing out to street.
4. Landscape by others
5. Sewer Lateral to have 2% min. rise
6. Provide rock retaining as req'd
7. Provide landscape berming for runoff water retention as req'd
8. All surface runoff to be contained within property boundaries
9. Provide stamped colored concrete or pavers for driveway as per owner
10. SWPPP sign location
11. Contractors responsibility to contact blue stakes and verify all utility locations prior to any earthwork.
12. Contractors responsibility to verify all utility connection points.

SUBDIVISION INFORMATION

City	Summit County
State	Utah
Plat	
Lot	5
Subdivision	Back Nine
Address	

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

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24 x 36 (sheet size): 1"=10'-0"

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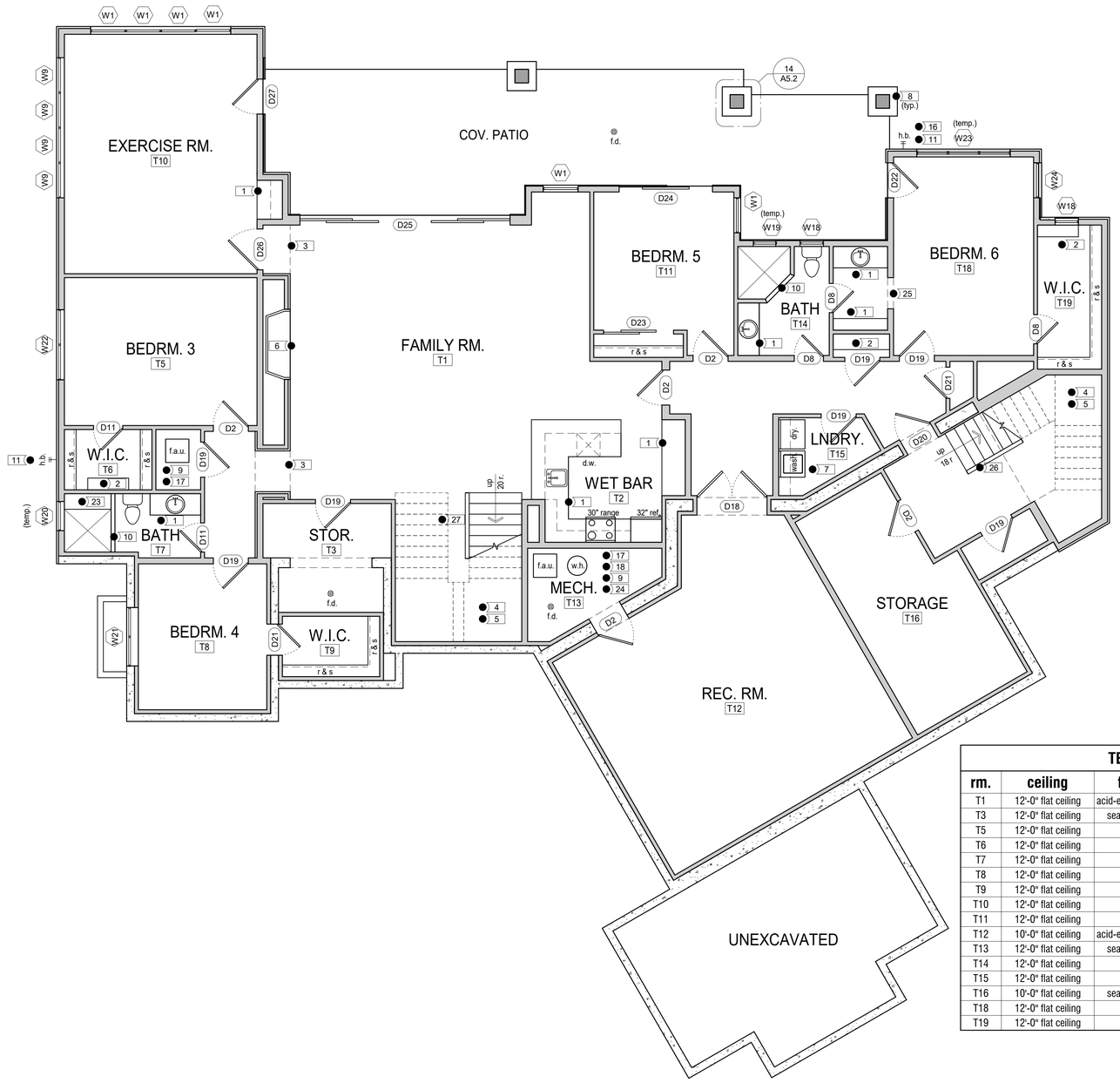
03 August 2021

C2.1

SITE PLAN



see sheet C1.3 for complete schedules

TERRACE DOOR SCHEDULE

DOOR	WIDTH	HEIGHT
D2	3' - 0"	8' - 0"
D8	2' - 6"	8' - 0"
D11	2' - 6"	8' - 0"
D18	6' - 0"	8' - 0"
D19	3' - 0"	8' - 0"
D20	3' - 0"	8' - 0"
D21	2' - 8"	8' - 0"
D22	3' - 0"	8' - 0"
D23	6' - 0"	8' - 0"
D24	8' - 0"	10' - 0"
D25	18' - 0"	10' - 0"
D26	3' - 6"	8' - 0"
D27	3' - 0"	8' - 0"

see sheet C1.3 for complete schedules

TERRACE WINDOW SCHEDULE

WIN.	WIDTH	HEIGHT	HEAD HT.
W1	3' - 0"	8' - 0"	10' - 0"
W4	5' - 0"	10' - 0"	21' - 0"
W9	3' - 0"	2' - 0"	10' - 0"
W18	2' - 0"	5' - 0"	10' - 0"
W19	2' - 0"	5' - 0"	10' - 0"
W20	2' - 6"	3' - 6"	8' - 0"
W21	5' - 0"	5' - 0"	8' - 0"
W22	6' - 0"	6' - 0"	8' - 0"
W23	8' - 0"	8' - 0"	10' - 0"
W24	3' - 0"	8' - 0"	10' - 0"

GENERAL & KEYED NOTES

1 Built-in cabinetry as per owner
2 Built-in shelving as per owner
3 Square cased opening w/ top @ 9'-0"
4 Provide handrail from nosing of top stair to nosing of bottom stair as per IRC
5 Provide 36" (min.) guardrail as per IRC & owner
6 Provide 72" direct vent gas fireplace as per owner
7 Provide tile pan & floor drain for washer & dryer
8 14" x 14" column w/ stone base as per owner
9 Provide flue as req'd
10 Provide tempered glass for shower door and enclosure as req'd
11 Non-freeze type hose bib w/ backflow preventers installed
12 Provide tiled bench in shower as per owner
13 Provide safety glazing as per IRC 308.4
14 All interior walls to be insulated as per owner
15 Stone over concrete as per owner & IRC
16 Provide hose bib at front & rear of the dwelling as req'd
17 Provide 2" step down into mech. rm.
18 Provide approved seismic strap for water heaters as per IRC
19 Provide concrete window wells w/ metal grate covering & ladder as per IRC
20 Provide 5/8" type 'x' gyp. bd. under stairs as per IRC
21 Provide perimeter drain as req'd
22 ICW IRC R303 natural ventilation equaling 4% of the floor area shall be through windows, doors, or other approved openings to the outdoors unless a whole house mechanical ventilation system with outside air is installed as per IRC M1507.3
23 Provide tiled bench in shower as per owner
24 Provide exterior combustion air as per IRC
25 Square cased opening w/ top @ 8'-0"
26 Pre-fabricated steel staircase w/ concrete treads as per owner
27 Floating staircase as per owner

TERRACE LEVEL ROOM SCHEDULE

rm.	ceiling	flr. fin.	gyp. bd.	paint	base	notes
T1	12'-0" flat ceiling	acid-etched concrete	x	x	x	
T3	12'-0" flat ceiling	sealed concrete	x			
T5	12'-0" flat ceiling	carpet	x	x	x	
T6	12'-0" flat ceiling	carpet	x	x	x	
T7	12'-0" flat ceiling	tile	x	x	x	
T8	12'-0" flat ceiling	carpet	x	x	x	
T9	12'-0" flat ceiling	carpet	x	x	x	
T10	12'-0" flat ceiling	carpet	x	x	x	
T11	12'-0" flat ceiling	carpet	x	x	x	
T12	10'-0" flat ceiling	acid-etched concrete	x	x	x	
T13	12'-0" flat ceiling	sealed concrete	x			
T14	12'-0" flat ceiling	tile	x	x	x	
T15	12'-0" flat ceiling	tile	x	x	x	
T16	10'-0" flat ceiling	sealed concrete	x	x	x	
T18	12'-0" flat ceiling	carpet	x	x	x	
T19	12'-0" flat ceiling	carpet	x	x	x	

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Shluker Residence

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24 x 36 (sheet size):3/16"=1'-0"

TERRACE LEVEL
Living Space 3651 SF
Storage 434 SF

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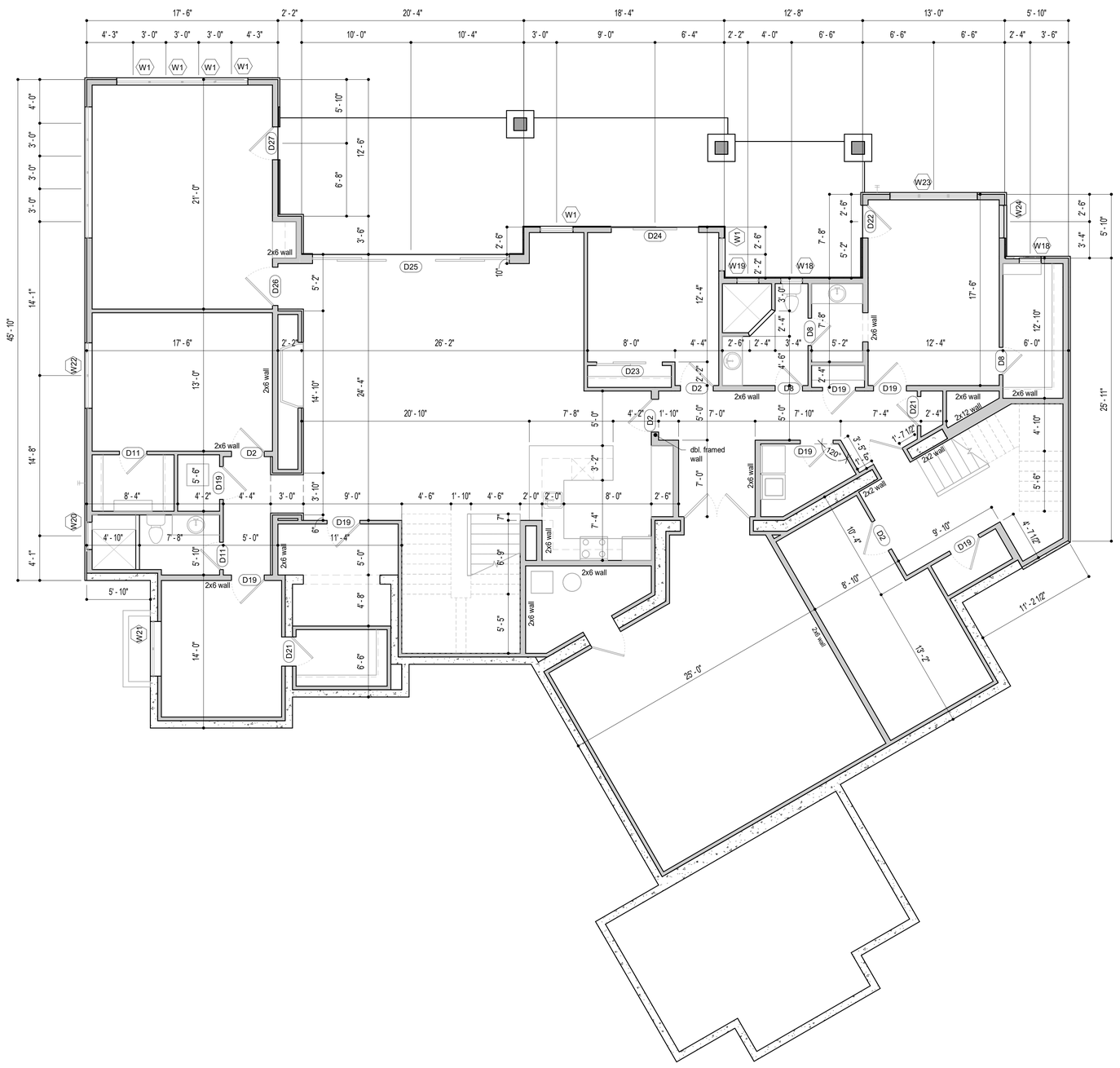
A1.1

TERRACE LEVEL FLOOR PLAN



GENERAL & KEYED NOTES

see sheet C1.3 for complete schedules

TERRACE DOOR SCHEDULE

DOOR	WIDTH	HEIGHT
D2	3' - 0"	8' - 0"
D8	2' - 6"	8' - 0"
D11	2' - 6"	8' - 0"
D18	6' - 0"	8' - 0"
D19	3' - 0"	8' - 0"
D20	3' - 0"	8' - 0"
D21	2' - 8"	8' - 0"
D22	3' - 0"	8' - 0"
D23	6' - 0"	8' - 0"
D24	8' - 0"	10' - 0"
D25	18' - 0"	10' - 0"
D26	3' - 6"	8' - 0"
D27	3' - 0"	8' - 0"

see sheet C1.3 for complete schedules

TERRACE WINDOW SCHEDULE

WIN.	WIDTH	HEIGHT	HEAD HT.
W1	3' - 0"	8' - 0"	10' - 0"
W4	5' - 0"	10' - 0"	21' - 0"
W9	3' - 0"	2' - 0"	10' - 0"
W18	2' - 0"	5' - 0"	10' - 0"
W19	2' - 0"	5' - 0"	10' - 0"
W20	2' - 6"	3' - 6"	8' - 0"
W21	5' - 0"	5' - 0"	8' - 0"
W22	6' - 0"	6' - 0"	8' - 0"
W23	8' - 0"	8' - 0"	10' - 0"
W24	3' - 0"	8' - 0"	10' - 0"

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

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24 x 36 (sheet size):3/16"=1'-0"

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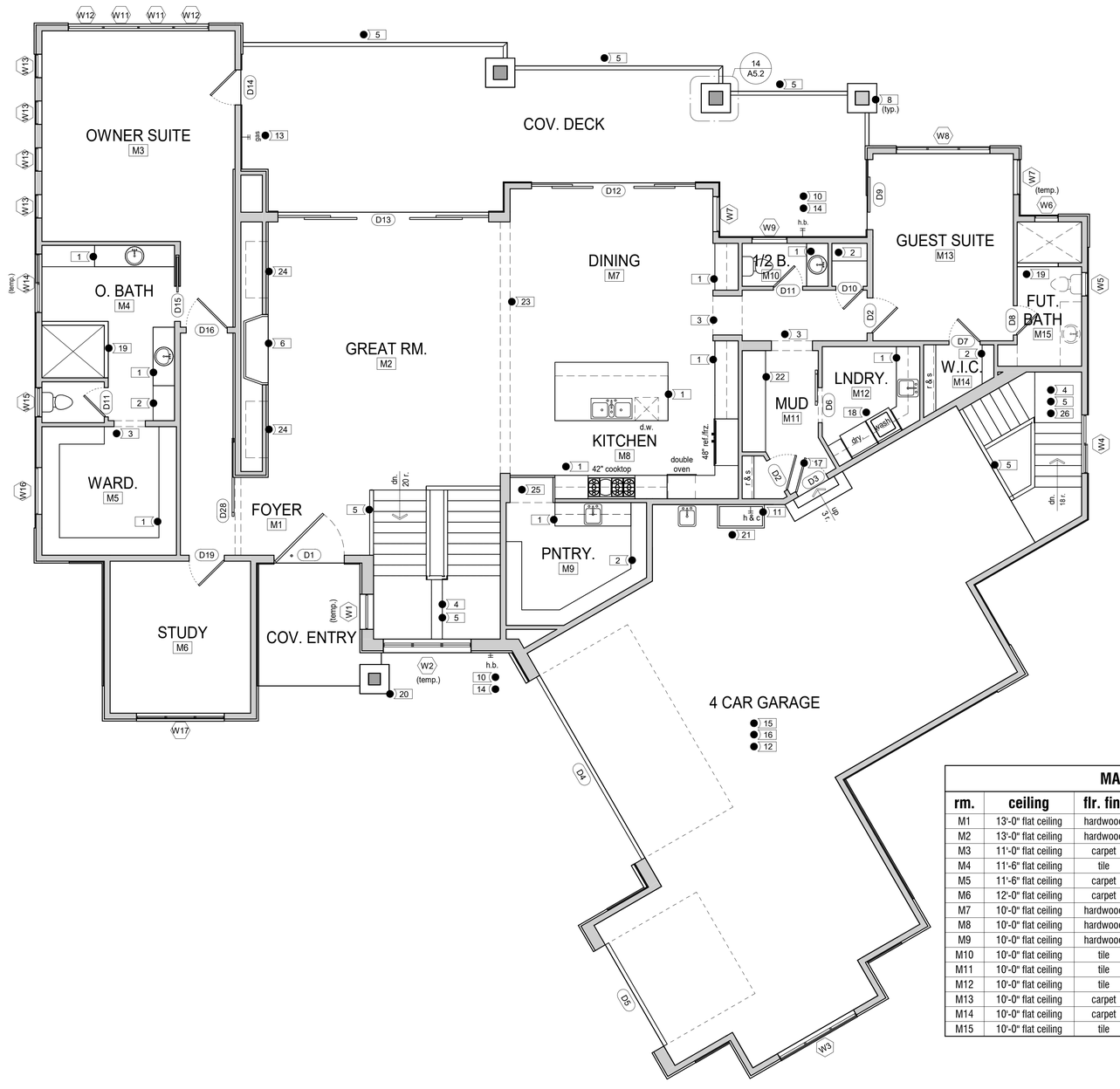
A1.2

TERRACE LEVEL DIMENSION PLAN



see sheet C1.3 for complete schedules

MAIN LEVEL WINDOW SCHEDULE

WIN.	WIDTH	HEIGHT	HEAD HT.
W1	3' - 0"	8' - 0"	10' - 0"
W2	7' - 6"	8' - 0"	10' - 0"
W3	7' - 6"	5' - 0"	8' - 0"
W5	2' - 0"	3' - 0"	8' - 0"
W6	2' - 0"	3' - 0"	8' - 0"
W7	3' - 0"	6' - 0"	8' - 0"
W8	8' - 0"	6' - 0"	8' - 0"
W9	3' - 0"	2' - 0"	8' - 0"
W10	4' - 6"	2' - 6"	11' - 6"
W11	3' - 0"	8' - 0"	10' - 0"
W12	3' - 0"	8' - 0"	10' - 0"
W13	2' - 0"	2' - 0"	10' - 0"
W14	5' - 0"	7' - 0"	10' - 0"
W15	2' - 6"	7' - 0"	10' - 0"
W16	4' - 0"	2' - 0"	10' - 0"
W17	7' - 6"	8' - 0"	10' - 0"

see sheet C1.3 for complete schedules

MAIN LEVEL DOOR SCHEDULE

DOOR	WIDTH	HEIGHT
D1	6' - 0"	9' - 0"
D2	3' - 0"	8' - 0"
D3	3' - 0"	8' - 0"
D4	18' - 0"	9' - 0"
D5	10' - 0"	9' - 0"
D6	3' - 0"	8' - 0"
D7	2' - 8"	8' - 0"
D8	2' - 6"	8' - 0"
D9	6' - 0"	8' - 0"
D10	2' - 4"	8' - 0"
D11	2' - 6"	8' - 0"
D12	14' - 0"	8' - 0"
D13	18' - 0"	9' - 0"
D14	3' - 0"	10' - 0"
D15	3' - 0"	8' - 0"
D16	3' - 6"	8' - 0"
D19	3' - 0"	8' - 0"
D28	6' - 8"	8' - 0"

MAIN LEVEL ROOM SCHEDULE

rm.	ceiling	flr. fin.	gyp. bd.	paint	base	notes
M1	13'-0" flat ceiling	hardwood	x	x	x	
M2	13'-0" flat ceiling	hardwood	x	x	x	
M3	11'-0" flat ceiling	carpet	x	x	x	
M4	11'-6" flat ceiling	tile	x	x	x	
M5	11'-6" flat ceiling	carpet	x	x	x	
M6	12'-0" flat ceiling	carpet	x	x	x	
M7	10'-0" flat ceiling	hardwood	x	x	x	
M8	10'-0" flat ceiling	hardwood	x	x	x	
M9	10'-0" flat ceiling	hardwood	x	x	x	
M10	10'-0" flat ceiling	tile	x	x	x	
M11	10'-0" flat ceiling	tile	x	x	x	
M12	10'-0" flat ceiling	tile	x	x	x	
M13	10'-0" flat ceiling	carpet	x	x	x	
M14	10'-0" flat ceiling	carpet	x	x	x	
M15	10'-0" flat ceiling	tile	x	x	x	

GENERAL & KEYED NOTES

1 Built-in cabinetry as per owner
2 Built-in shelving as per owner
3 Square cased opening w/ top @ 8'-0"
4 Provide handrail from nosing of top stair to nosing of bottom stair as per IRC
5 Provide 36" (min.) guardrail as per IRC & owner
6 Provide 72" direct vent gas fireplace as per owner
8 10" x 10" column w/ stone base as per owner
9 Provide flue as req'd
10 Non-freeze type hose bib w/ backflow preventers installed
11 Provide hot & cold mixing valve
12 Provide (2) layers 1/2" type 'x' gyp. bd. @ clg. & (1) layer 5/8" type 'x' gyp. bd. @ house walls
13 Provide gas line for outdoor BBQ as per IRC & owner
14 Provide hose bib at front & rear of the dwelling as req'd
15 Slope concrete slab 4" to doors
16 All penetrations (plumbing, water, vacuum, etc.) through garage fire wall to be w/ metal piping
17 This door to be metal, 20 min. fire-rated w/ self-closing hinge as per IRC
18 Provide tile pan & floor drain for washer & dryer
19 Provide tempered glass for shower door and enclosure as req'd
20 12" x 12" column w/ stone base as per owner
21 Dog wash, provide hot and cold, as per owner per owner
22 Built-in locker system as per owner
23 Square cased opening w/ top @ 9'-0"
24 Provide recess in wall as per owner
25 Provide secret passage built into cabinetry as per owner
26 Pre-fabricated steel staircase w/ concrete treads as per owner

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

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24 x 36 (sheet size):3/16"=1'-0"

MAIN LEVEL
Garage Space 1485 SF
Living Space 3034 SF

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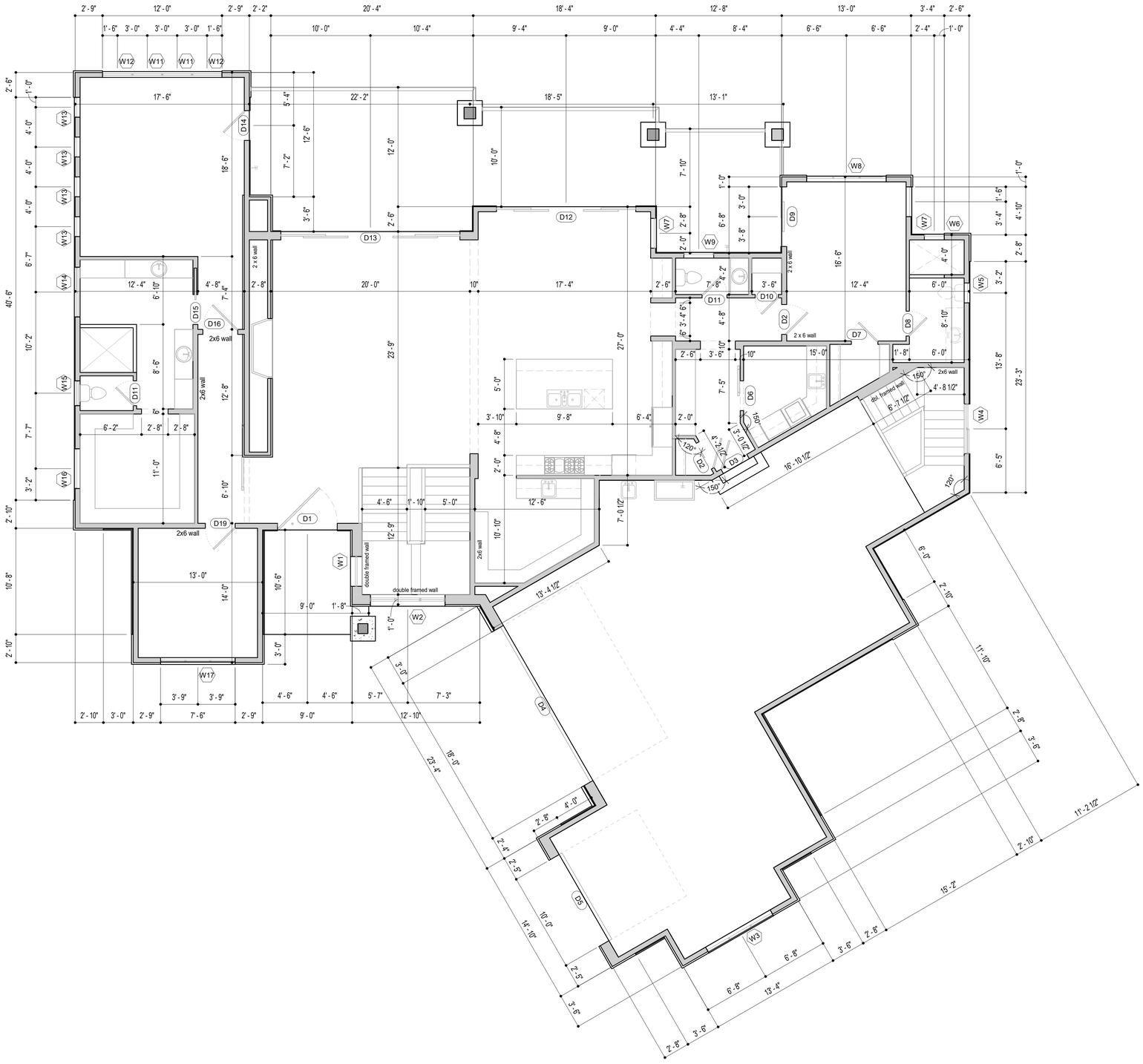
A1.3

MAIN LEVEL FLOOR PLAN



GENERAL & KEYED NOTES

see sheet C1.3 for complete schedules

MAIN LEVEL DOOR SCHEDULE

DOOR	WIDTH	HEIGHT
D1	6' - 0"	9' - 0"
D2	3' - 0"	8' - 0"
D3	3' - 0"	8' - 0"
D4	18' - 0"	9' - 0"
D5	10' - 0"	9' - 0"
D6	3' - 0"	8' - 0"
D7	2' - 8"	8' - 0"
D8	2' - 6"	8' - 0"
D9	6' - 0"	8' - 0"
D10	2' - 4"	8' - 0"
D11	2' - 6"	8' - 0"
D12	14' - 0"	8' - 0"
D13	18' - 0"	9' - 0"
D14	3' - 0"	10' - 0"
D15	3' - 0"	8' - 0"
D16	3' - 6"	8' - 0"
D19	3' - 0"	8' - 0"
D28	6' - 8"	8' - 0"

see sheet C1.3 for complete schedules

MAIN LEVEL WINDOW SCHEDULE

WIN.	WIDTH	HEIGHT	HEAD HT.
W1	3' - 0"	8' - 0"	10' - 0"
W2	7' - 6"	8' - 0"	10' - 0"
W3	7' - 6"	5' - 0"	8' - 0"
W5	2' - 0"	3' - 0"	8' - 0"
W6	2' - 0"	3' - 0"	8' - 0"
W7	3' - 0"	6' - 0"	8' - 0"
W8	8' - 0"	6' - 0"	8' - 0"
W9	3' - 0"	2' - 0"	8' - 0"
W10	4' - 6"	2' - 6"	11' - 6"
W11	3' - 0"	8' - 0"	10' - 0"
W12	3' - 0"	8' - 0"	10' - 0"
W13	2' - 0"	2' - 0"	10' - 0"
W14	5' - 0"	7' - 0"	10' - 0"
W15	2' - 6"	7' - 0"	10' - 0"
W16	4' - 0"	2' - 0"	10' - 0"
W17	7' - 6"	8' - 0"	10' - 0"

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

12 x 18 (sheet size): 1/8"=1'-0"
24 x 36 (sheet size):3/16"=1'-0"

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A1.4

MAIN LEVEL DIMENSION PLAN

GENERAL & KEYED NOTES

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24 x 36 (sheet size):3/16"=1'-0"

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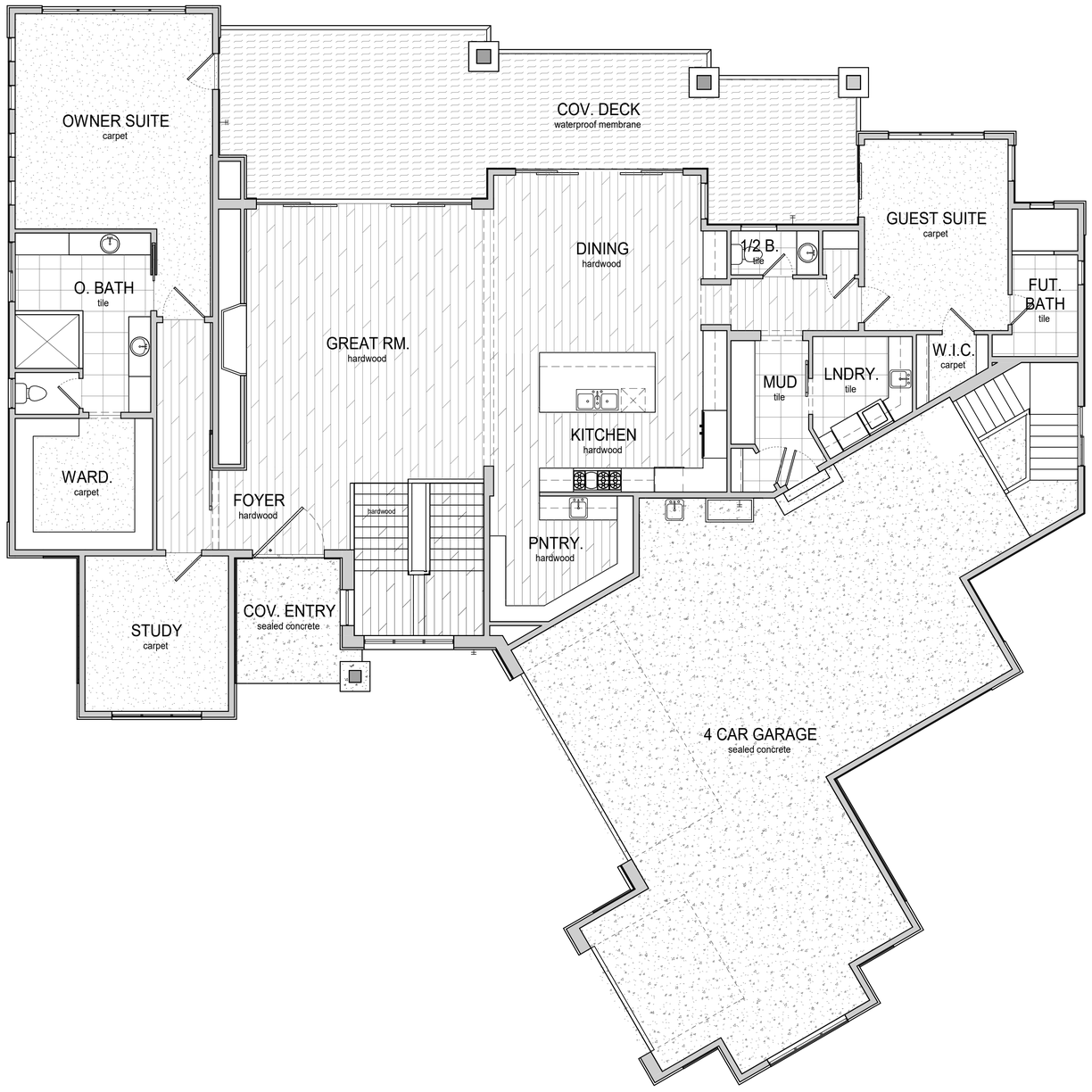
A2.1

TERRACE LEVEL REFL. FLOOR PLAN



GENERAL & KEYED NOTES

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

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A2.2

MAIN LEVEL REFL. FLOOR PLAN

FRONT ELEVATION

REAR ELEVATION

GENERAL & KEYED NOTES

1 Provide soffit, ridge, & j-vents for adequate attic ventilation equal to 1/300 of attic space as per IRC
2 Class 'A' architectural asphalt composition shingles as per owner
3 Standing seam metal roof as per owner
4 10" metal fascia w/ vented soffit as per owner
5 Provide flashing & caulking of all exterior openings. An inspection shall be made to approve weather-resistive barrier. Flashing shall be provided at all windows, doors, wall & roof intersections, vents, and under masonry. Flashing shall be installed in s
6 Stone veneer as per owner w/ 22 ga. ties @ 16" o.c. each way
7 Horizontal siding as per owner & per IRC R703.3
8 10" x 10" column w/ stone base as per owner
9 12" x 12" column w/ stone base as per owner
10
11 Provide stone chimney cap as per owner
12 Provide 36" (min.) guardrail as per IRC & owner
13 Synthetic stucco system w/ hardcoat as per owner

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Shluker Residence

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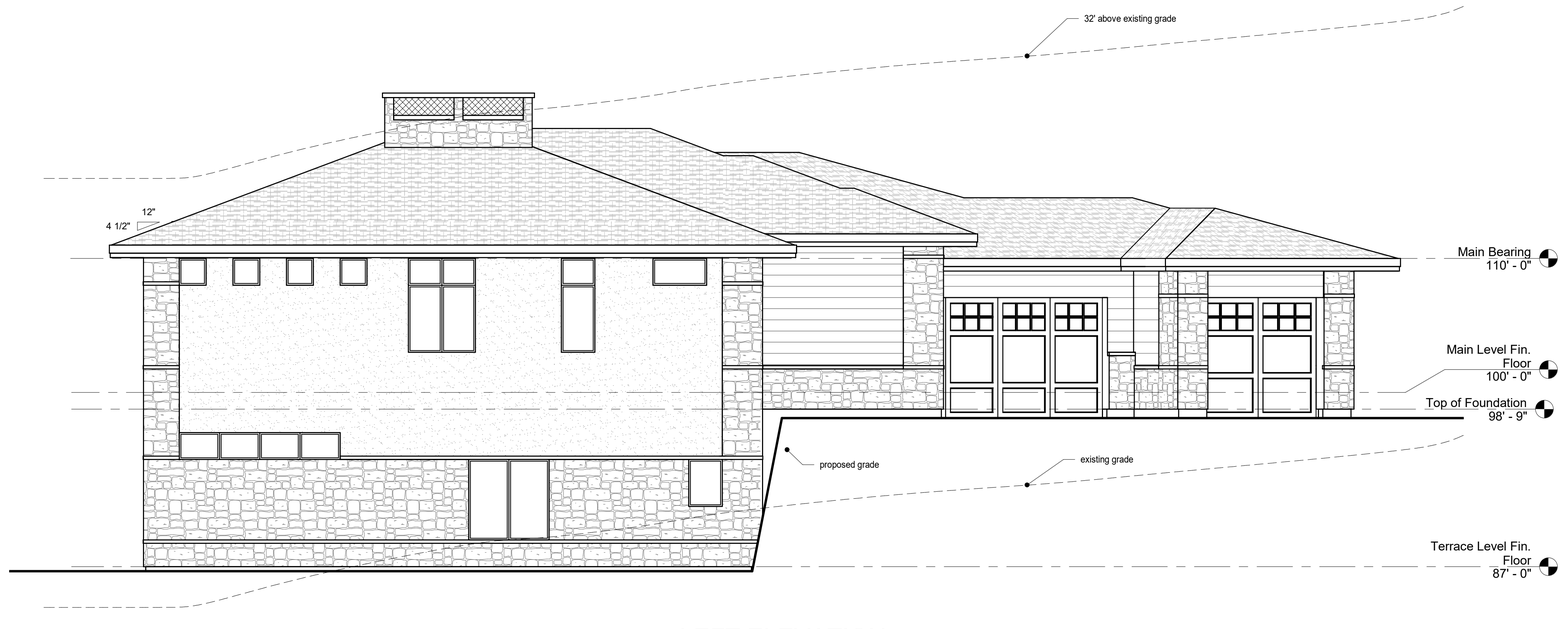
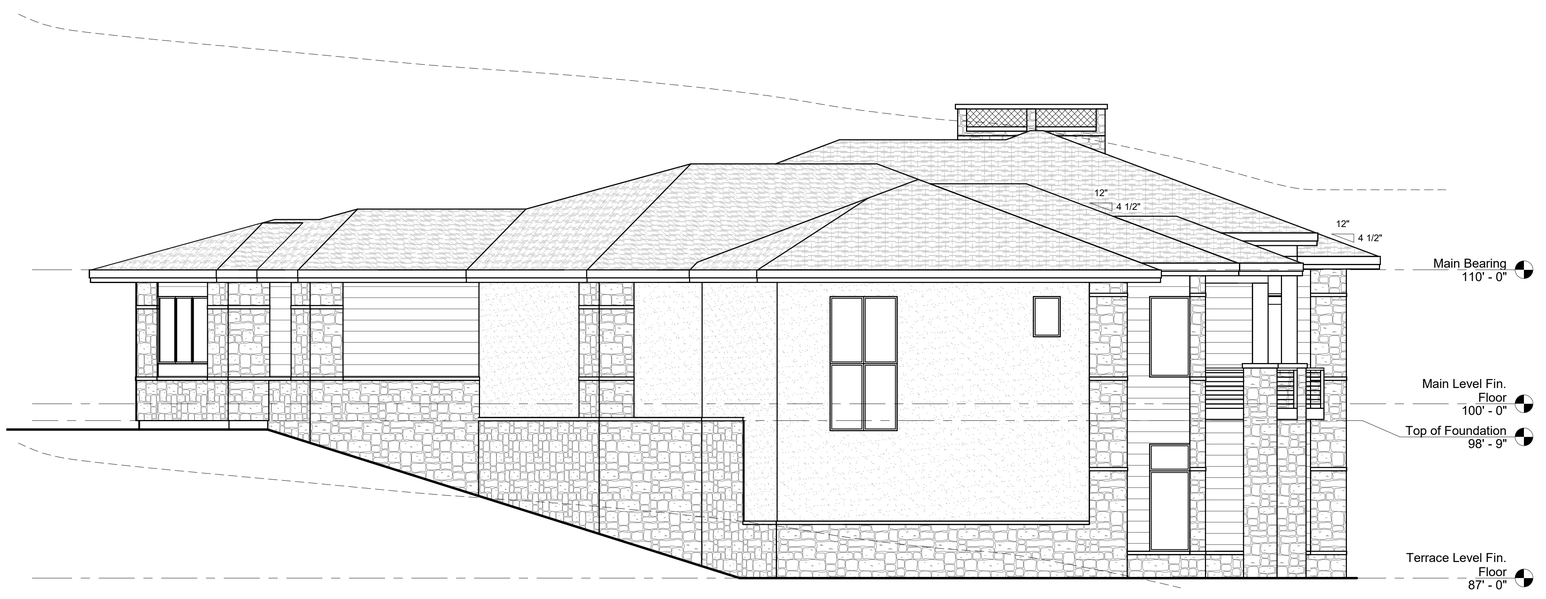
A3.1

FRONT & REAR ELEVATIONS



LEFT ELEVATION



RIGHT ELEVATION

GENERAL & KEYED NOTES

see sheet A3.1 for notes

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24 x 36 (sheet size):3/16"=1'-0"

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A3.2

LEFT & RIGHT SIDE ELEVATIONS

FRONT RIGHT PERSPECTIVE

FRONT LEFT PERSPECTIVE

REAR RIGHT PERSPECTIVE

REAR LEFT PERSPECTIVE

GENERAL & KEYED NOTES

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

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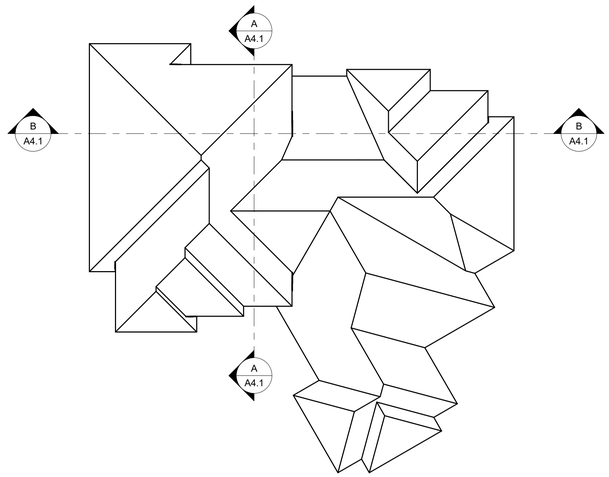
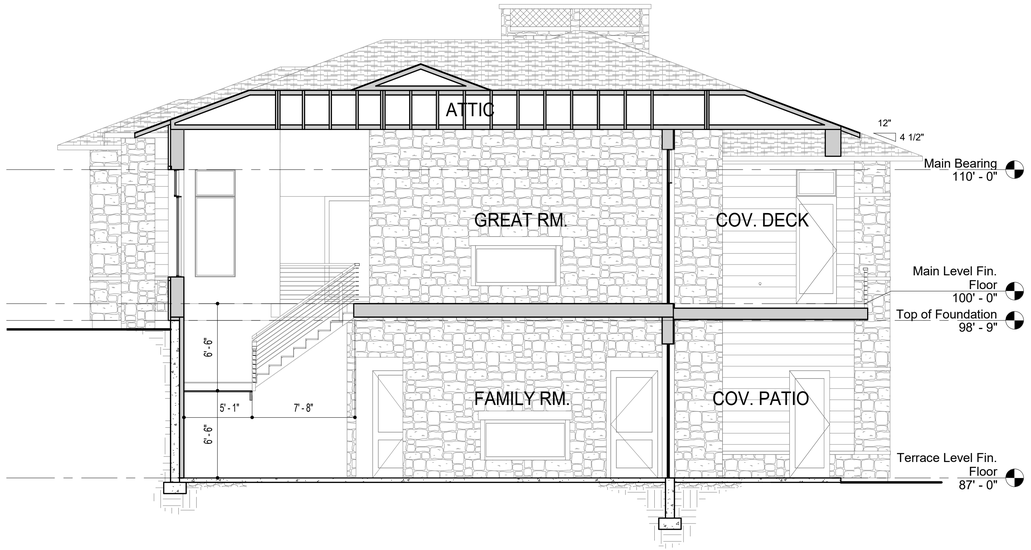
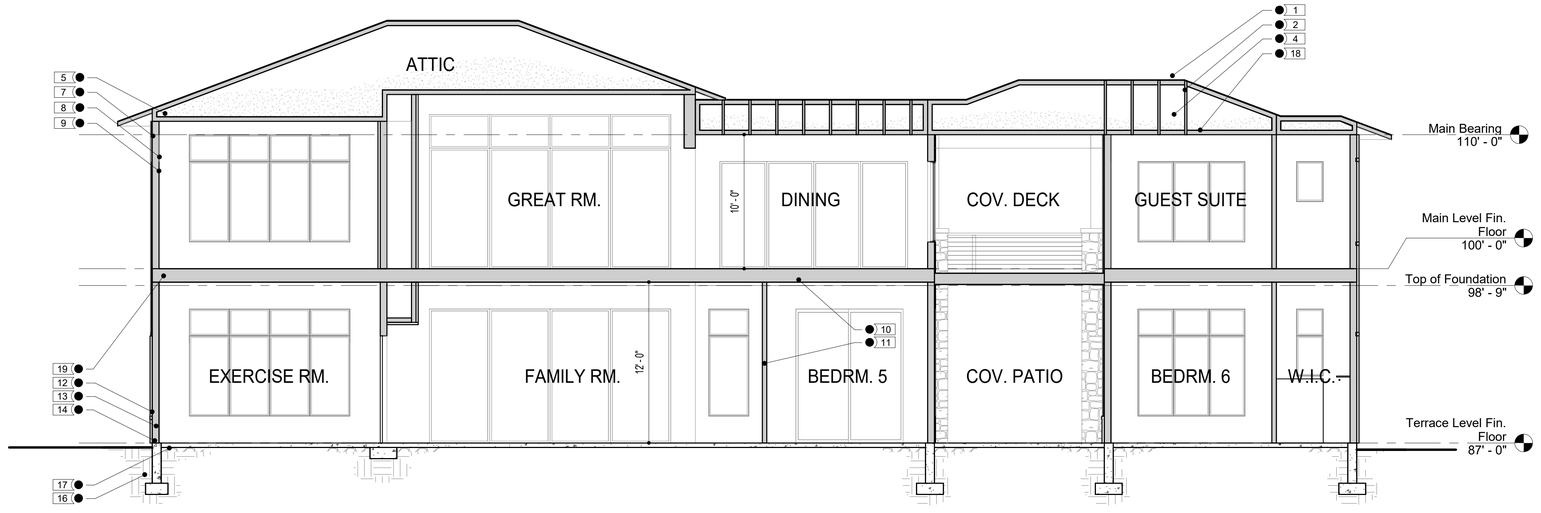
A3.3

PERSPECTIVE VIEWS





BUILDING SECTION 'A'



BUILDING SECTION 'B'

GENERAL & KEYED NOTES

1. Class 'A' architectural asphalt composition shingles as per owner
2. Pre-manufactured roof trusses as per Roof Framing Plan
3. Roof sheathing as per Roof Framing Plan
4. R-50 (min.) blown-in ceiling insulation
5. Provide attic insulation baffles as per IRC
6. 2 x 10 fascia board
7. Provide (1) layer of weather barrier (Tyvek or Typar type) behind brick veneer & (2) layers behind stucco finish
8. 1/2" gypsum board @ inside of walls & ceiling (typical unless noted otherwise)
9. Provide counter flashing & caulking of all exterior opening (doors, windows, vents, etc.)
10. Floor joists as per Floor Framing Plans
11. Interior walls: 2x4's @ 16" o.c. (u.n.o)
12. Exterior wall sheathing as per engineering - provide 1/8" gap or as per manuf. specs.
13. Exterior walls: 2x6's @ 16" o.c. (u.n.o) w/ R-23 (min.) insulation
14. Provide redwood or treated sill plate @ all concrete to wood connections
15. Concrete foundation & footings as per Footing & Foundation Plan
16. Earth to be unexcavated or compacted to 90%
17. 4" concrete slab o/4" free draining granular fill
18. Provide a minimum 4-mil polyethylene vapor retarder over the insulation on the inside (warm side) of all exterior walls and roof ceilings. -IRC R601.3
19. Solid block all joist bearing locations

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

12 x 18 (sheet size): 1/8"=1'-0"
24 x 36 (sheet size):3/16"=1'-0"

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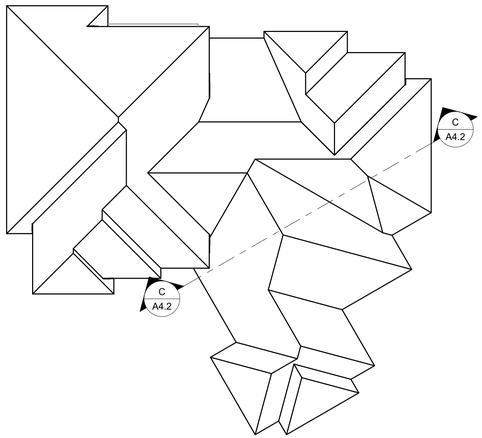
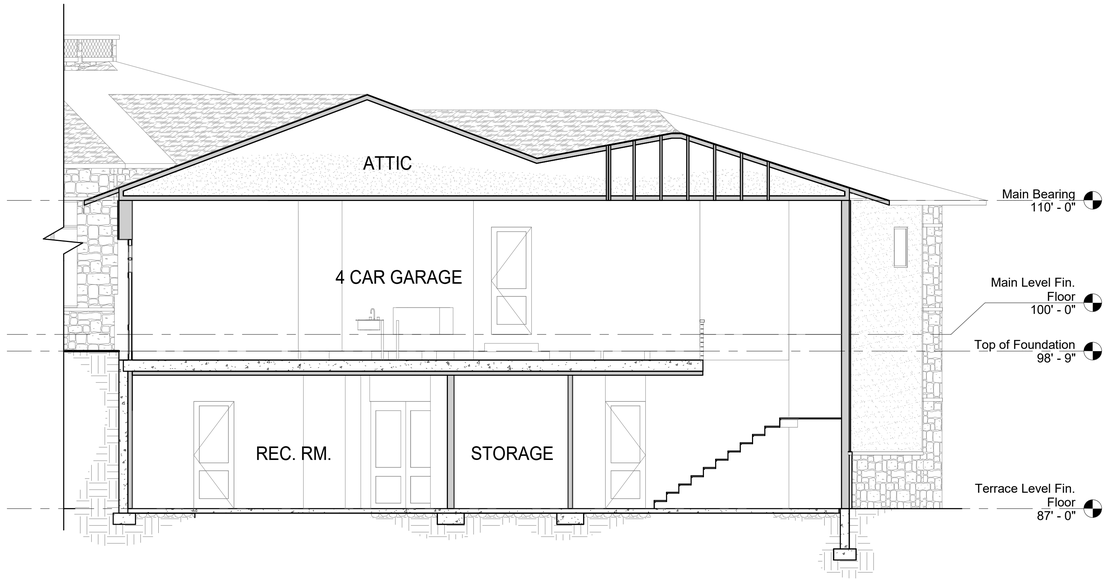
A4.1

BUILDING SECTION 'A' & 'B'





BUILDING SECTION 'C'

GENERAL & KEYED NOTES

See sheet A4.2 for notes

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Shluker Residence

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24 x 36 (sheet size):3/16"=1'-0"

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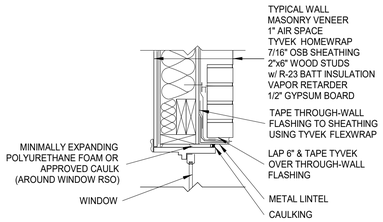
A4.2

BUILDING SECTION 'C'

GENERAL NOTES
*SEAL ALL TYVEK JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.



WINDOW HEAD DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)

9

GENERAL NOTES
*SEAL ALL TYVEK JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
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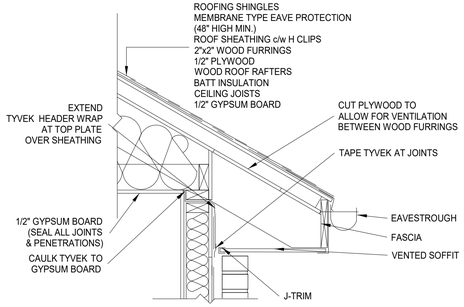
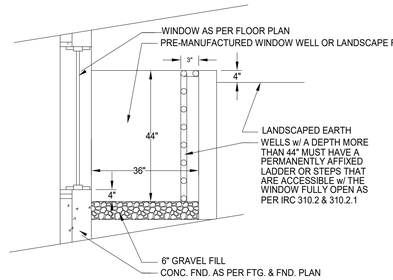


ROOF/ WALL INTERFACE DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (COOLING CLIMATE)

6



NOTES: -BARS, GRILLES, GRATES OR SIMILAR DEVICES MAY BE INSTALLED, PROVIDED THEY ARE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

-LADDERS SHALL HAVE AN INSIDE RUNG WIDTH OF 12" (MIN.), SPACED NO FURTHER THAN 18" O.C., AND SHALL PROJECT 3" (MIN.) FROM WALL.

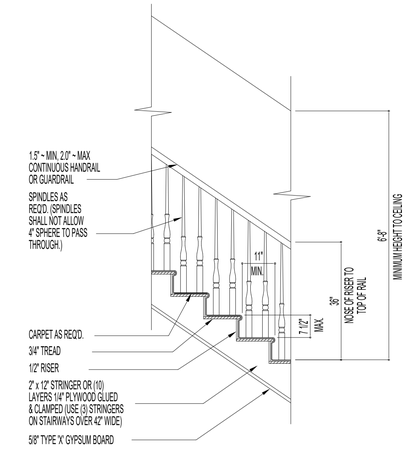
-STEPS SHALL HAVE 12" (MIN.) TREAD WIDTH, 24" (MAX.) RISE, AND SHALL NOT ENCROACH INTO REQUIRED DIMENSION OF WINDOW WELL BY MORE THAN 6".

-WINDOW WELL MUST EXTEND 8" BEYOND EACH SIDE OF THE WINDOW

-WINDOW WELLS LOCATED UNDER A DECK OR PORCH MUST HAVE A CLEAR PATH TO SAFETY NOT LESS THAN 36" IN HEIGHT.

WINDOW WELL DETAIL

3



STAIR DETAIL
SCALE: 1/2" = 1'-0" ST-001

1

*SEAL ALL TYVEK JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS

WINDOW HEAD DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (HEATING CLIMATE)

10

GENERAL NOTES
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*FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT FACE OF TYVEK
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.

FLOOR/ WALL INTERFACE DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (COOLING CLIMATE)

7

4

TYP. WALL SECTION
NOT TO SCALE

2

GENERAL NOTES
*SEAL ALL TYVEK JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
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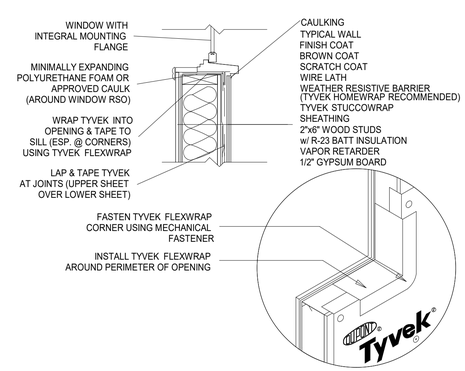
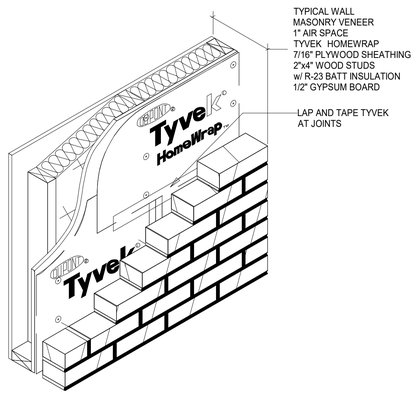
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS



WINDOW SILL DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (HEATING CLIMATE)

11



TYPICAL WALL ISOMETRIC
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (COOLING CLIMATE)

8

GENERAL NOTES
*SEAL ALL TYVEK JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
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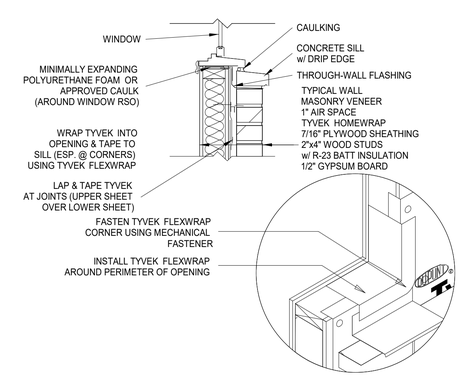

WINDOW SILL DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (COOLING CLIMATE)

5

GENERAL & KEYED NOTES

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Back Nine, Lot 5 Summit County, Utah

SCALE AS NOTED

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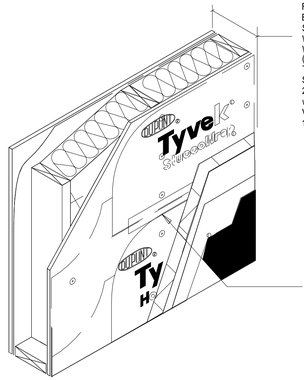
A5.1

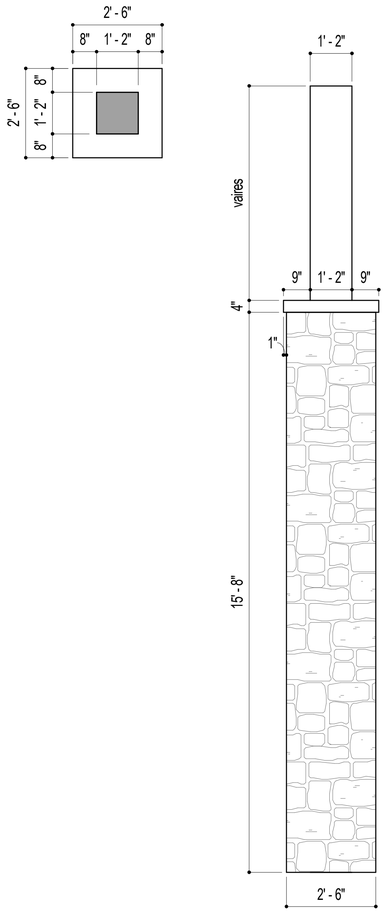
ARCHITECTURAL DETAILS



TYPICAL WALL ISOMETRIC

RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (HEATING CLIMATE)

13



Column Detail

Scale: 1/2" = 1'-0"

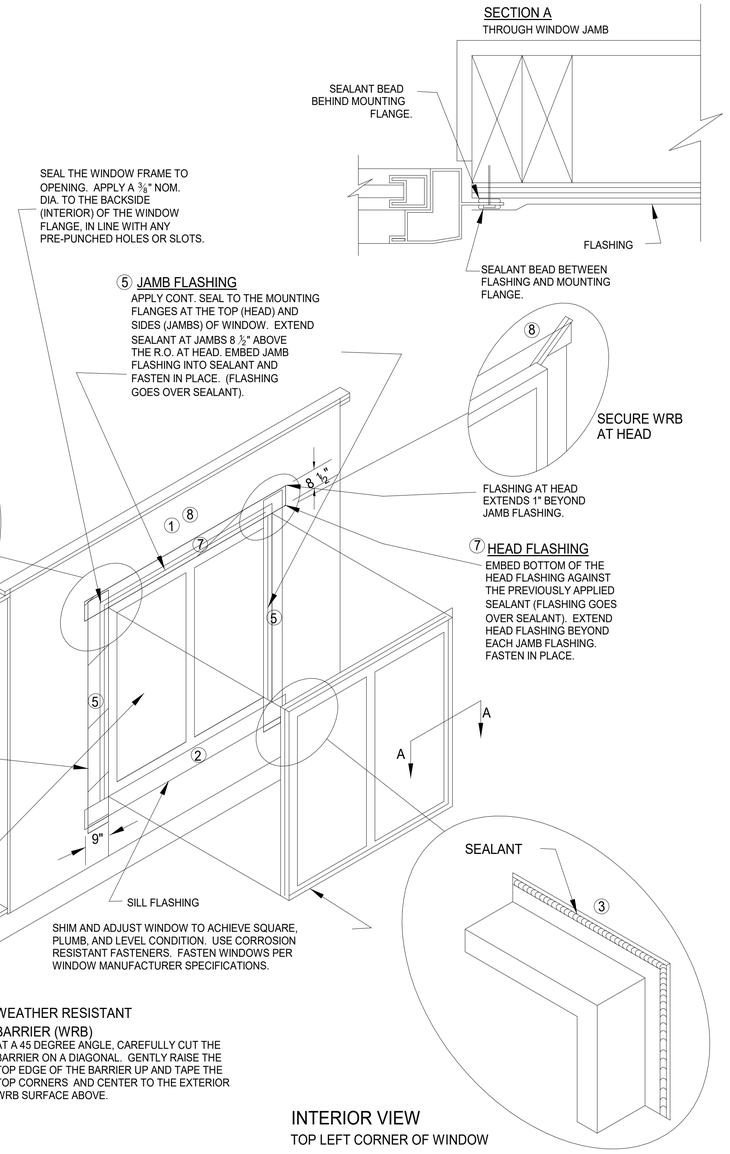
14

WINDOW INSTALLATION (METHOD A-1)

WEATHER RESITIVE BARRIER (WRB) APPLIED PRIOR TO THE WINDOW INSTALLATION.
FLASHING APPLIED OVER THE FACE OF THE MOUNTING FLANGE.

STEPS

1. IN WATER SHEDDING FASHION, STARTING AT THE BASE OF THE WALL & WORKING TOWARDS THE TOP, INSTALL THE WRB TO THE FACE OF THE SHEATHING.
2. APPLY SILL FLASHING
3. APPLY BEAD OF SEALANT AT BACK OF WINDOW FLANGE & SET WINDOW USING PAN HEAD SCREWS TO FACILITATE INSPECTION.
4. APPLY BEAD OF SEALANT AT SIDE JAMBS. EXTEND 8 ½"
5. APPLY JAMB FLASHING
6. APPLY BEAD OF SEALANT AT HEAD
7. APPLY HEAD FLASHING
8. REMOVE PREVIOUSLY APPLIED TAPE, ALLOWING WRB TO LAY FLAT OVER HEAD FLASHING. APPLY NEW SHEATHING TAPE OVER DIAGONAL CUT - SEE DIAGRAM.



① WEATHER RESISTANT BARRIER (WRB)
AT A 45 DEGREE ANGLE, CAREFULLY CUT THE BARRIER ON A DIAGONAL. GENTLY RAISE THE TOP EDGE OF THE BARRIER UP AND TAPE THE TOP CORNERS AND CENTER TO THE EXTERIOR WRB SURFACE ABOVE.

INTERIOR VIEW
TOP LEFT CORNER OF WINDOW

12

GENERAL & KEYED NOTES

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

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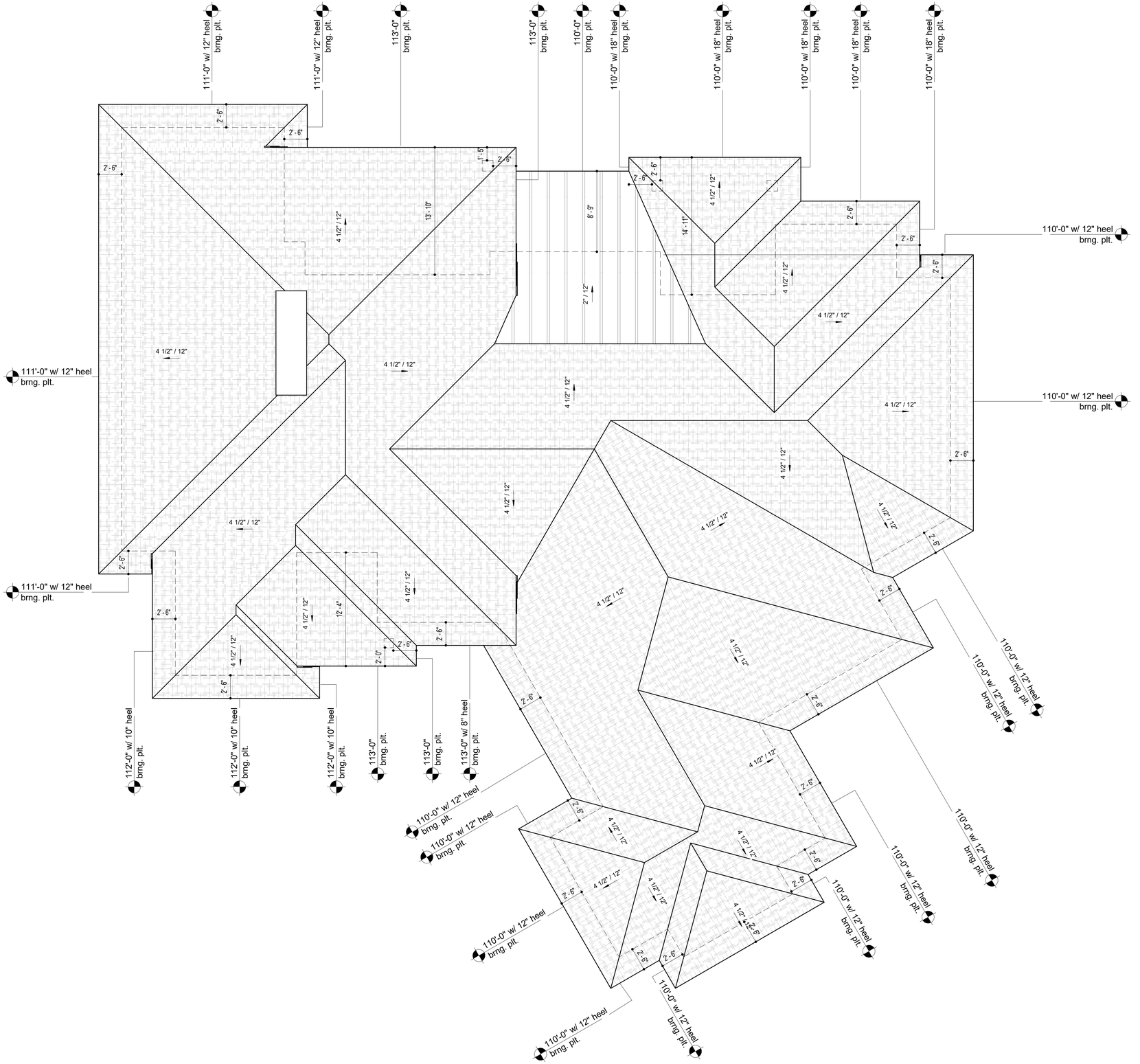
A5.2

ARCHITECTURAL DETAILS



GENERAL & KEYED NOTES

1. All overhangs to be x'-x" from finished wall except @ barrel dormers & shed dormers (1'-0") or noted otherwise
2. Provide adequate slope for water drainage as req'd
3. Provide ice & water shield @ all roof edges, eaves or valleys, & extend 24" up warm side of the exterior wall
4. Provide adequate attic ventilation area req'd by code
5. Truss manufacturer to submit engineered shop drawings to city building officials for approval prior to fabrication
6. Provide 24" x 48" skylight

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Shluker Residence

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12 x 18 (sheet size): 1/8"=1'-0"
24 x 36 (sheet size):3/16"=1'-0"

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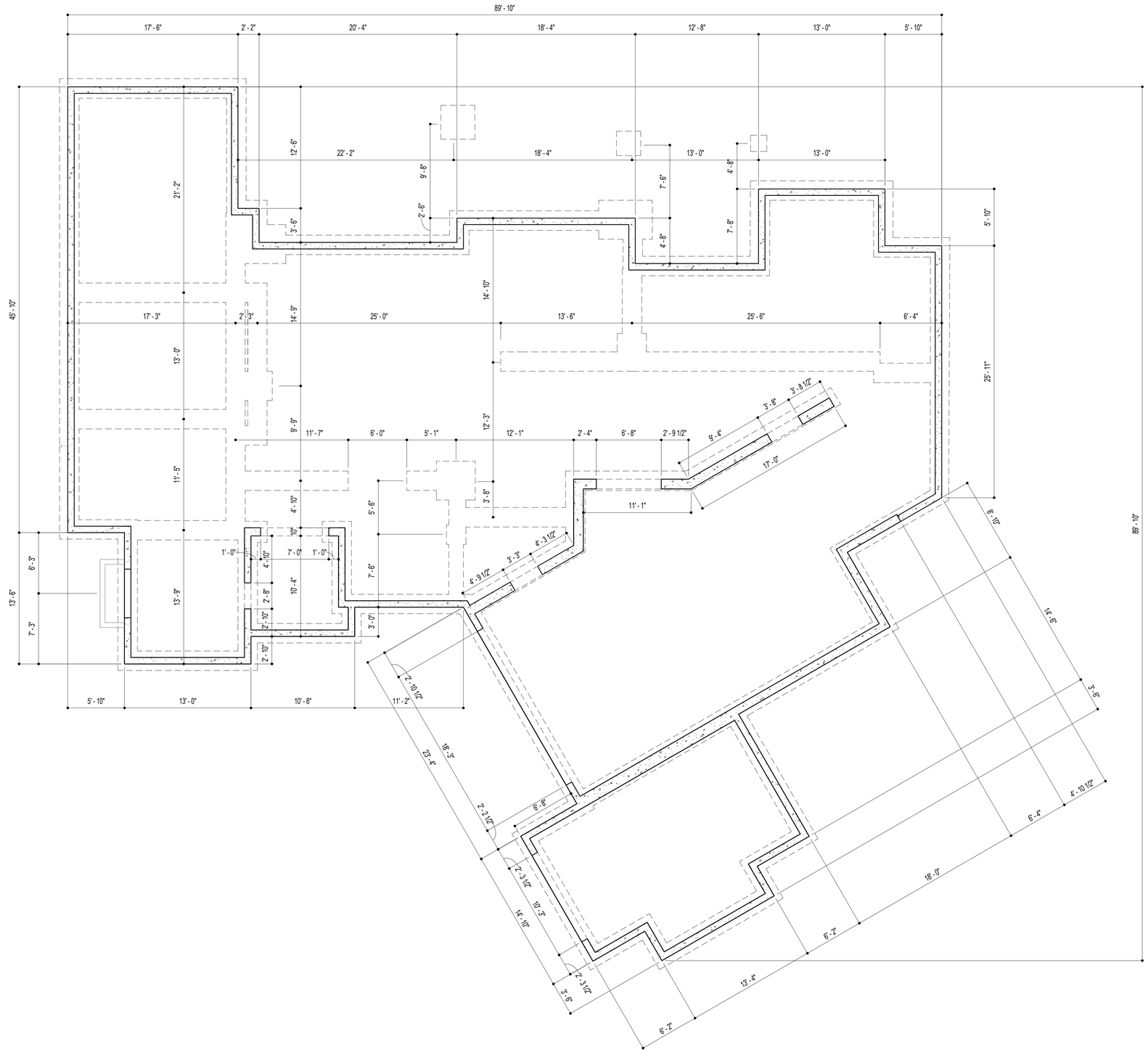
A6.1

ROOF PLAN



GENERAL & KEYED NOTES

Note:
Dimensions on sheet are for convenience only.Verify all footing & wall sizes and dimensions with engineering plans.

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Shluker Residence

Back Nine, Lot 5 Summit County, Utah

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24 x 36 (sheet size):3/16"=1'-0"

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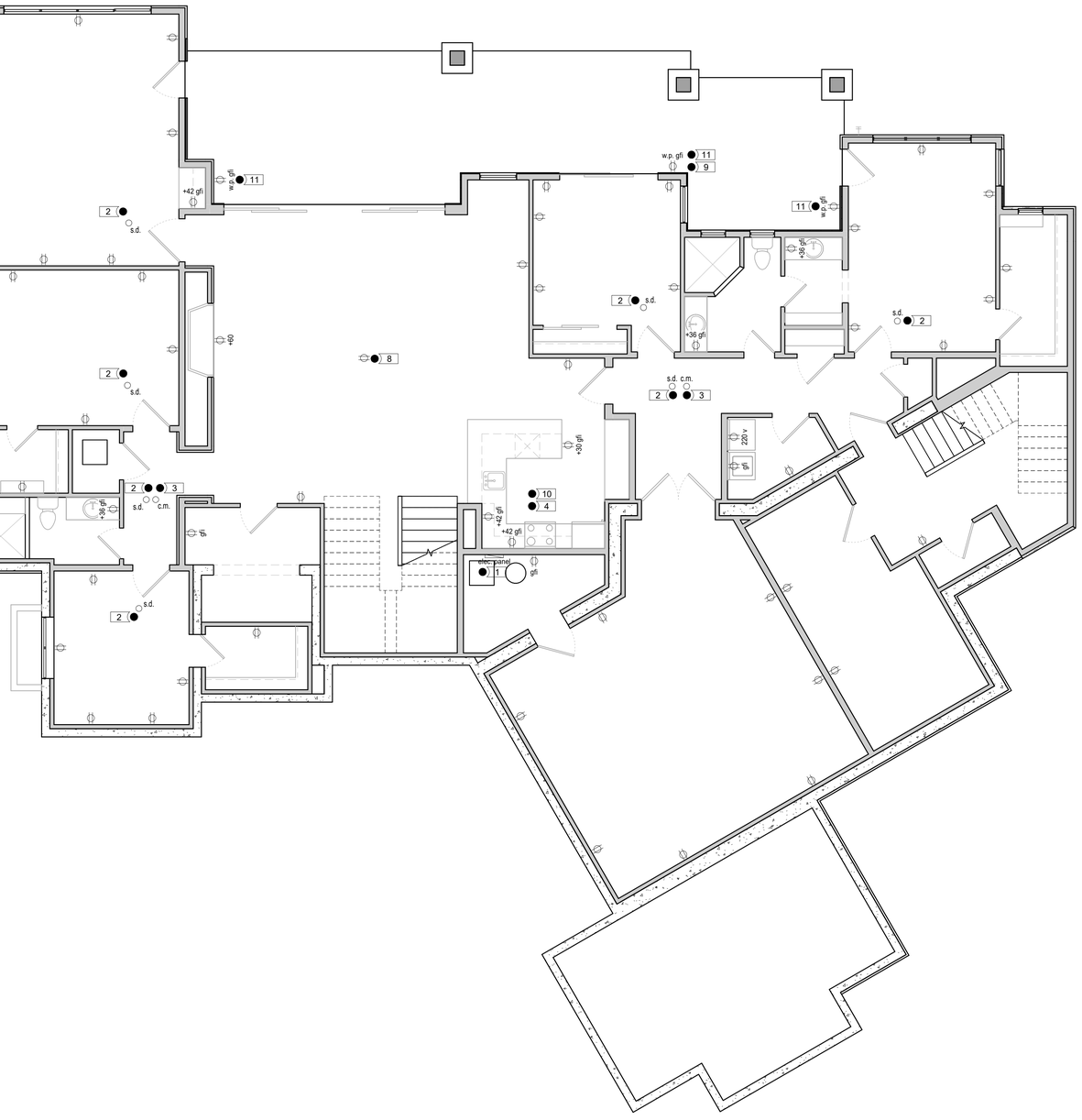
A7.1

FOUNDATION DIMENSION PLAN



GENERAL & KEYED NOTES

1 Provide electrical panel as per code
2 All smoke detectors to be hard-wired, interconnected, and have battery backup as per IRC R314
3 Provide carbon monoxide detectors @ each habitable level of dwelling as per IRC
4 All receptacles serving kitchen counter tops, in garages, baths, unfinished basements, and outside receptacles shall be GFCI protected. Per IRC E3902
5 Outlets are req'd so that no point along walls is more than 6 feet from an outlet
6 All electrical installations shall comply with the IRC 2015 & NEC 2014
7 All branch circuits that supply electrical in bedrooms need to be provided with arc-fault protection. Per IRC 3902.12
8 Floor outlet w/ metal protective covering as per owner
9 An outlet is req'd outside the front and rear of the dwelling as per IRC
10 Outlets are req'd abv. counter space so that no point along the wall is more than 24" from an outlet
11 All exterior outlets to be GFCI protected w/ weather proof bubble covers
12 All outlets are to be tamper resistant as req'd

ELECTRICAL LEGEND

- 110v duplex outlet
- gfi — 110v duplex outlet - ground fault circuit interrupter
- wp gfi — 110v duplex outlet waterproof - ground fault circuit
- 220v duplex outlet
- TE — Telephone jack
- TV — Cable Outlet
- s.d. — Smoke Detector as per code
- c.m. — Carbon monoxide detector as per code
- Electrical panel
- EV — Provide junction box & conduit for future elec. vehicle hook up

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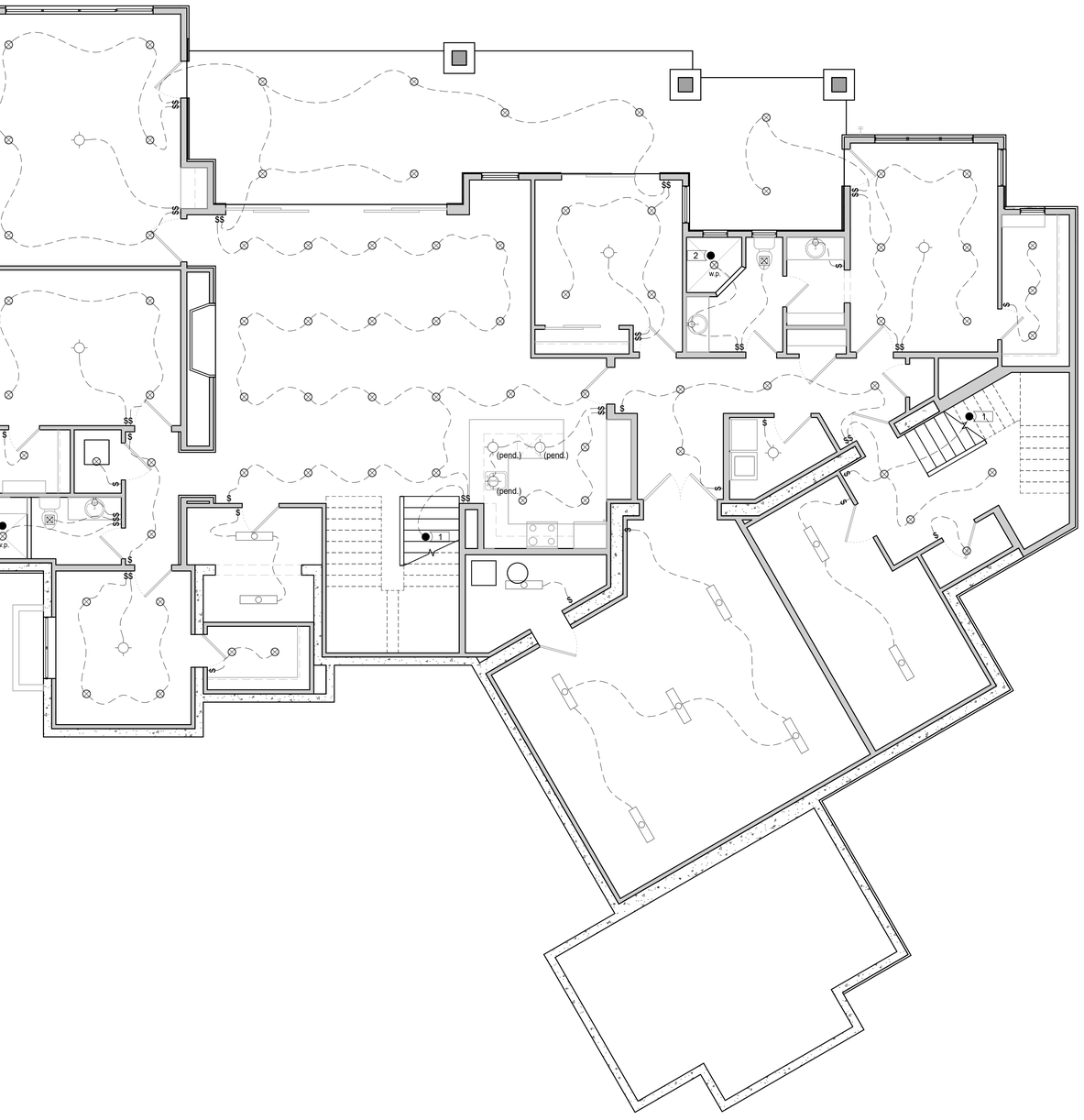
E1.1

TERRACE LEVEL POWER PLAN



GENERAL & KEYED NOTES

1 To above
2 All light fixtures above tubs, showers, & Steam Rm. to be waterproof

LIGHTING LEGEND

	Ceiling mounted fixture as per owner L.E.D. lamp
pend.	Ceiling mounted pendant fixture as per owner L.E.D. lamp
chand.	Ceiling mounted chandelier as per owner L.E.D. lamp
	ICAT recessed fixture as per owner L.E.D. light
	Wall mounted fixture as per owner L.E.D. lamp
	Wall sconce as per owner L.E.D. lamp
	Ceiling mounted flourescent fixture as per owner Flourescent light
	Exterior wall mounted fixture as per owner L.E.D. lamp
	Ceiling fan as per owner L.E.D. lamp
	Flood light as per owner
S	Stair Light as per owner - Switch to photocell w/ override switch
	High output L.E.D. lighting as per owner
	Exhaust fan fixture as per owner
$	Light switch

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Shluker Residence

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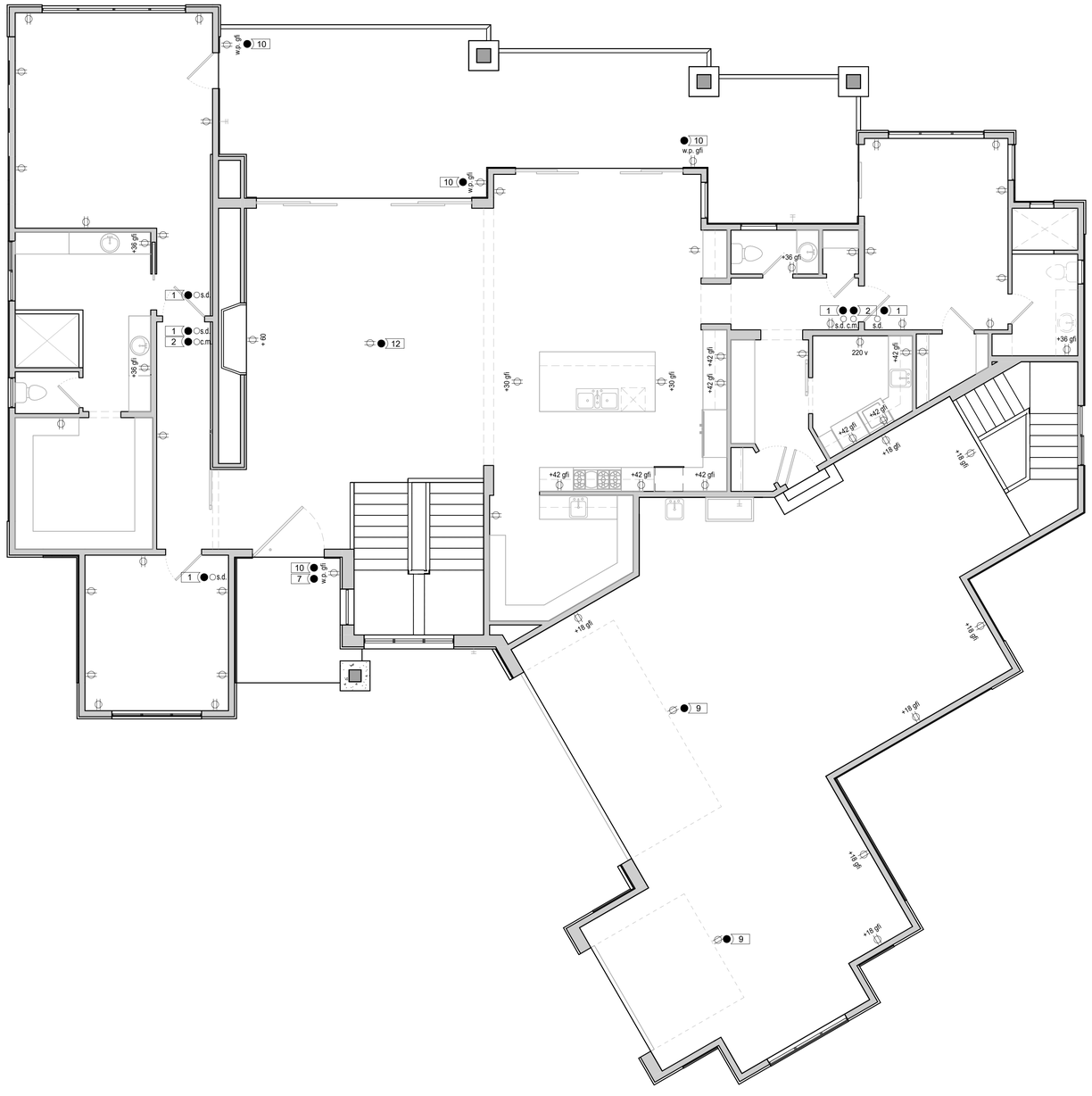
E1.2

TERRACE LEVEL LIGHTING PLAN



GENERAL & KEYED NOTES

1. All smoke detectors to be hard-wired, interconnected, and have battery backup as per IRC R314
2. Provide carbon monoxide detectors @ each habitable level of dwelling as per IRC
3. All receptacles serving kitchen counter tops, in garages, baths, unfinished basements, and outside receptacles shall be GFCI protected. Per IRC E3902
4. Outlets are req'd so that no point along walls is more than 6 feet from an outlet
5. All electrical installations shall comply with the IRC 2015 & NEC 2014
6. All branch circuits that supply electrical in bedrooms need to be provided with arc-fault protection. Per IRC 3902.12
7. An outlet is req'd outside the front and rear of the dwelling as per IRC
8. Outlets are req'd abv. counter space so that no point along the wall is more than 24" from an outlet
9. Provide outlet @ ceiling for garage door opener
10. All exterior outlets to be GFCI protected w/ weather proof bubble covers
11. All outlets are to be tamper resistant as req'd
12. Provide outlet @ floor - location as per owner

ELECTRICAL LEGEND

- 110v duplex outlet
- gfi — 110v duplex outlet - ground fault circuit interrupter
- wp gfi — 110v duplex outlet waterproof - ground fault circuit
- 220v duplex outlet
- TE — Telephone jack
- TV — Cable Outlet
- s.d. — Smoke Detector as per code
- c.m. — Carbon monoxide detector as per code
- Electrical panel
- EV — Provide junction box & conduit for future elec. vehicle hook up

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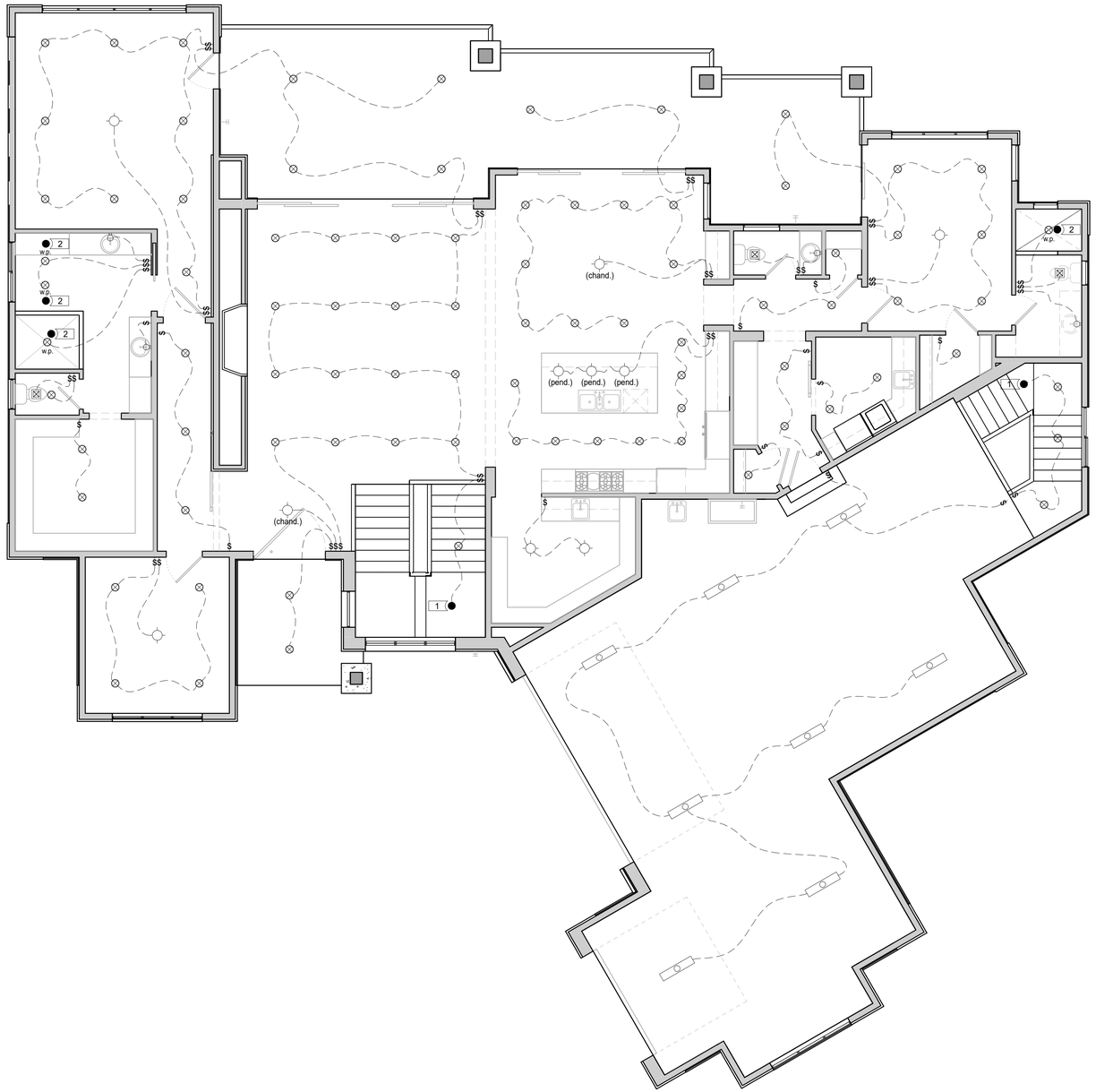
E1.3

MAIN LEVEL POWER PLAN



GENERAL & KEYED NOTES

1 To below
2 All light fixtures above tubs, showers, & Steam Rm. to be waterproof

LIGHTING LEGEND

	Ceiling mounted fixture as per owner L.E.D. lamp
pend.	Ceiling mounted pendant fixture as per owner L.E.D. lamp
chand.	Ceiling mounted chandelier as per owner L.E.D. lamp
	ICAT recessed fixture as per owner L.E.D. light
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	Ceiling mounted flourescent fixture as per owner Flourescent light
	Exterior wall mounted fixture as per owner L.E.D. lamp
	Ceiling fan as per owner L.E.D. lamp
	Flood light as per owner
S	Stair Light as per owner - Switch to photocell w/ override switch
	High output L.E.D. lighting as per owner
	Exhaust fan fixture as per owner
$	Light switch

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Shluker Residence

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E1.4

MAIN LEVEL LIGHTING PLAN

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA Shluker Residence (Park City) 2540621

1. Building code: Utah Code, Title 15A
   1.1 Model building code: 2015 IRC
   1.2 Use and occupancy classification: R (Residential - 1-unit dwelling)
   1.3 Risk Category: II (Not occupancy categories I, III, IV)
2. Dead loads
   2.1 Roof = 15 psf (10 psf top chord, 5 psf bottom chord)
   2.2 Floor = 12 psf
   2.3 Walls = 10 psf (interior walls), 12 psf (exterior walls)
3. Live loads
   -- Roofs (ordinary construction) = 20 psf (or 300 lb point load)
   -- Residential (1-2 unit dwelling) = 40 psf
   -- Stairs and exits (residential 1-2 unit dwelling) = 40 psf (or 300 lb point load)
   -- Decks = 60 psf
4. Rain load
   4.1 Median 15-minute duration rainfall intensity = 4.42 in/hr
   4.2 Median 60-minute duration rainfall intensity = 1.84 in/hr
5. Snow load
   5.1 Ground snow load, Pg = 90 psf (elevation 6405 ft)
   5.2 Exposure factor, Ce = 1
   5.3 Thermal factor, Ct = 1
   5.4 Snow importance factor, Is = 1
   5.5 Flat roof snow load, Pf = 63 psf
   5.6 Roof slope factor, Cs = 1
6. Earthquake design data
   6.1 Mapped acceleration parameters
      6.1.1 Latitude, Longitude: 40.766, -111.581
      6.1.2 MCE short period Ss = 0.62 SDS = 0.54
      6.1.3 MCE 1.0 sec. period S1 = 0.22 SD1 = 0.32
   6.2 Seismic design category: D0
   6.3 Seismic importance factor, Ie = 1
   6.4 Basic structural system: Bearing wall systems
   6.5 Seismic force-resisting system: Light-frame wood walls (wood sheathing)
      6.5.1 Response modification factor R = 6.5
      6.5.2 System overstrength factor Omega = 3
      6.5.3 Deflection amplification factor Cd = 4
   6.6 Equivalent Lateral Force Procedure
      6.6.1 Seismic response coefficient Cs = 0.08
      6.6.2 Seismic base shear (LRFD) V = 18594 lb
7. Wind design data
   7.1 Exposure category: C
   7.2 Basic design wind speed, V = 105 mph
   7.3 Components and cladding pressure = 25 psf (end), 21 psf (interior)
   7.4 Internal pressure coeff., Gcpi = 0.18
8. Geotechnical design basis:
   - Presumptive values, 2018 IBC Table 1806.2
   8.2 Site class = D-Default
   8.3 Soil notes: None
   8.4 Lateral earth pressure
      8.4.1 Active = 30 psf/ft
      8.4.2 At-rest = 60 psf/ft
   8.5 Allowable foundation parameters
      8.5.1 Allowable soil bearing, Qa = 1500 psf
      8.5.2 Allowable lateral bearing = 150 psf/ft
      8.5.3 Coefficient of friction = 0.25
   8.6 Minimum frost cover = 40 in.

DEFERRED SUBMITTALS

1. The following items are to submitted subsequent to the time of application (deferred submittals):
   -- Prefabricated metal plate wood trusses - roof (truss manufacturer)
   -- Precast concrete panels (precast manufacturer)
2. Deferred submittals shall have the prior approval of the building official (2018 IBC 107.3.4.1).
3. Deferred submittal documents shall be submitted to the registered design professional in responsible charge who shall review and forward them to the building official with a notation indicating that the documents have been reviewed and found to be in general conformance to the design of the building (2018 IBC 107.3.4.1).
4. Deferred submittal items shall not be installed until the design and submittal documents have been approved by the building official (2018 IBC 107.3.4.1).

GENERAL

1. Construction documents are valid for a single use at the project location and shall not be reused, copied, or reproduced without written approval of the registered design professional in responsible charge.
2. General notes and typical details are provided as a supplement to the construction documents and apply where specific notes and details are not available. Specific notes and structural details shall take precedence over general notes and typical details. Structural requirements shown in the framing plans and in structural details shall take precedence over structural notes indicated in architectural sections.
3. Printed dimensions shall take precedence over scales shown on construction documents. The registered design professional in responsible charge does not warrant the accuracy of scaled dimensions.
4. Approval by the inspector does not imply approval by the registered design professional in responsible charge. Structural specifications that are unclear or ambiguous shall be referred to the registered design professional in responsible charge for interpretation or clarification.
5. The registered design professional in responsible charge assumes no liability for the accuracy, completeness, or code compliance of architectural, electrical, mechanical, drainage, or other non-structural specifications.
6. Omissions in and conflicts between the various elements of the construction documents shall be brought to the immediate attention of the registered design professional in responsible charge and shall be resolved by the same before proceeding with any work involved.
7. Requests for substitutions shall be submitted in writing to the registered design professional in responsible charge and shall include the reasons for the request and any cost differentials. Substitutions are not allowed unless approved in writing by the registered design professional in responsible charge.
8. The contractor shall become familiar with all portions of the construction documents and shall ensure that all subcontractors are familiar with those portions pertaining to their area of work. The contractor shall verify all site conditions, dimensions, elevations, coordinate all doors, windows, non-bearing interior and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfer, kerfs, and so forth, and immediately notify the registered design professional in responsible charge regarding actual conditions which are not in agreement with the construction documents.
9. The contractor is responsible for the method, means, and sequence of all structural erection except when specifically noted otherwise in the construction documents. The contractor shall provide temporary shoring and bracing, providing adequate vertical and lateral support during erection. Shoring and bracing shall remain in place until all permanent members are placed and all final connections are completed.
10. The contractor is responsible for standard connections, unless noted otherwise. The contractor shall obtain additional assistance from the registered design professional in responsible charge for non-standard connections.

SOIL AND FOUNDATIONS

1. Geotechnical investigations shall conform to 2018 IBC 1803. Excavation, grading and fill shall conform to 2018 IBC 1804. Footings and foundations shall be constructed in accordance with 2018 IBC 1807 through 1810.
2. Where required, the owner shall submit a geotechnical investigation report to the building official in accordance with 2018 IBC 1803. The contractor shall inform the registered design professional in responsible charge if the soil conditions are not consistent with the investigation report and the foundation design data.
3. Excavations for any purpose shall not remove lateral support from any footing or foundation without first underpinning or protecting the footing or foundation against settlement or lateral translation (2018 IBC 1804.1).
4. Excavation outside the foundation shall be backfilled with soil that is free of organic material, construction debris, cobbles and boulders or with a controlled low-strength material (CLSM). The backfill shall be placed in lifts and compacted, in a manner that does not damage the foundation or the waterproofing or dampproofing material (2018 IBC 1804.3).
5. The ground immediately adjacent to the foundation shall have a 5-percent slope away from the building for a minimum distance of 10 feet measured perpendicular to the face of the foundation wall. If physical obstructions or lot lines prohibit 10 feet of horizontal distance, a 5-percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Impervious surfaces within 10 feet of the building foundation shall have a minimum 2-percent slope (2018 IBC 1804.4).
6. Footings and foundations shall be built on undisturbed soil, compacted fill material or CLSM. Compacted fill material and CLSM shall conform to 2018 IBC 1804.6 and 2018 IBC 1804.7, respectively (2018 IBC 1809.2).
7. The top surface of the footings shall be level. The bottom surface of footings is permitted to have a maximum 10-percent slope. Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground has more than a 10-percent slope (2018 IBC 1809.3).
8. The minimum depth of footings below the undisturbed ground surface shall be 12 inches (2018 IBC 1809.4). Foundation walls, piers and other permanent supports shall be extended below the frost line, except where otherwise protected from frost (2018 IBC 1809.5).
9. The placement of footings on or adjacent to 33-percent slopes and steeper shall conform to 2018 IBC 1808.7.
10. Floors of basements shall be placed over base course not less than 4 inches in thickness and a drain shall be installed around the foundation perimeter that consists of gravel or crushed stone containing not more than 10-percent material that passes through a No. 4 sieve (2018 IBC 1805.4.1, 1805.4.2).
11. Backfill shall not be placed against a foundation wall until the wall has sufficient strength and is anchored to the floor above, or is sufficiently braced to prevent damage by the backfill, except bracing is not required for walls supporting less than 4 feet of unbalanced backfill (R404.1.7).

CONCRETE

1. Concrete materials, quality control, and construction shall comply with 2018 IBC Chapter 19 and ACI 318-14.
2. Compressive strength (minimum specified at 28 days)
   2.1. Footings: 3,000 psi (2018 IBC 1808.8.1) (2,500 psi used in design)
   2.2. Interior floor slabs on grade: 4,000 psi
   2.3. Exterior floor slabs on grade: 4,000 psi
   2.4. Suspended slabs: 4,000 psi
   2.5. Walls: 3,000 psi (2018 IBC 1904.1) for R-2, R-3 occupancies and appurtenances
   4,000 psi for other occupancies
3. Materials
   3.1. Cements (ASTM C 150). Concrete exposed to freezing and thawing or deicing chemicals shall conform to the maximum water-cementitious material ratios and minimum compressive strength requirements of ACI 318-14 table 19.3.1.1 & 19.3.2.1
   3.2. Aggregates (ASTM C 33): nominal maximum size of coarse aggregate shall not be larger than 1/5 the narrowest dimension between forms, nor 1/3 the depth of slabs, nor 3/4 the minimum clear spacing between reinforcing bars or wires, tendons, or ducts (ACI 318-14 26.4.2.1).
   3.3. Water used in mixing concrete shall be potable, clean and free from injurious amounts of oils, acids, alkalis, salts, organic materials, or other substances deleterious to concrete or reinforcement (ACI 318-14 26.4.1.3.1.b).
   3.4. Admixtures shall be subject to prior approval by the registered design professional in responsible charge (ACI 318-14 26.4.1.4.1.b).
   3.5. Concrete exposed to freezing and thawing or deicing chemicals shall be air-entrained with air content indicated in ACI 318-14 Table 19.3.3.1. Tolerance on air content as delivered shall be plus/minus 1.5 percent (ACI 318-14 R26.4.2.1(a)(5)).
4. Steel Reinforcement
   4.1. Deformed bars: fy = 60 ksi (ASTM A615)
   4.2. Welded plain wire: fy = 60 ksi (ASTM A1064)
   4.3. Deformed Bar Anchors (DBA) (ASTM A1064)
   4.4. Headed Stud Anchors (HSA) (ASTM A108)
   4.5. At the time concrete is placed, reinforcement shall be free from ice, mud, oil, or other nonmetallic coatings that decrease bond (ACI 318-14 26.6.1.2).
   4.6. Reinforcement shall be accurately placed and adequately supported before concrete is placed, and shall be secured against displacement (ACI 318-14 26.6.2.2).
   4.7. Details of reinforcement shall conform to ACI 318-14 Chapter 25.
5. Minimum concrete cover (ACI 318-14 Table 20.6.1.3.1)
   5.1. Concrete cast against and exposed to earth: 3 inches
   5.2. Concrete exposed to earth or weather:
      5.2.1. No. 6 through No. 18 bars: 2 inches
      5.2.2. No. 5 bar, W31 wire, and smaller: 1.5 inches
   5.3. Concrete not exposed to earth or weather:
      5.3.1. Slabs, walls, joists No. 11 bar and smaller: 0.75 inches
      5.3.2. Beams, columns primary reinf., ties, stirrups: 1.5 inches
6. Formwork shall conform to ACI 318-14 Sections 26.11 and 26.12 and ACI 347. Forms shall be removed in a manner as not to impair safety and serviceability of the structure. Concrete exposed by form removal shall have sufficient strength not to be damaged by removal operation (ACI 318-14 26.11.2).
7. Conduits, pipes, and sleeves of any material not harmful to concrete and within the limitations of ACI 318-14 20.7 shall be approved by the registered design professional in responsible charge (ACI 318-14 20.7).
8. Construction joints shall be so made and located as not to impair the strength of the structure (ACI 318-14 18.10.9).
9. The thickness of concrete floor slabs on grade shall not be less than 3.5 inches. A 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches (or an equivalent material) shall be placed between the base course or subgrade and the concrete floor slab, except a vapor retarder is not required in detached utility buildings or other unheated facilities (2018 IBC 1907).

MASONRY

1. Masonry materials, construction, and quality shall conform to 2018 IBC 2103-2105, TMS 402/602-16
   1.1. Compressive strength: f'c = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
2. Concrete masonry units (CMU) (ASTM C 90)
   2.1. Grade N
   2.2. Compressive strength: f'm = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
3. Mortar (ASTM C 270)
   3.1. Type S Portland cement (TMS 402-16 7.4.4.2.2)
   3.2. Compressive strength: f'c = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
4. Grout (ASTM C 476)
   4.1. Type: fine or coarse (2018 IBC 2103.3)
   4.2. Compressive strength (minimum specified at 28 days): f'c = 2,000 psi (ASTM C 1019)
5. Steel reinforcement
   5.1. Deformed bars: fy = 60 ksi (ASTM A 615 Gr. 60)
   5.2. Deformed Bar Anchors (DBA) (ASTM A1064)
   5.3. Headed Stud Anchors (HSA) (ASTM A108)
6. Bed joint thickness shall be 5/8 inch maximum (TMS 602-16 1.4B.2)
7. Grout shall have an 8"-11" slump using a 3/8" maximum aggregate. Grout lifts shall not exceed 5 feet in height unless noted otherwise. Consolidate by mechanical vibration pours that exceed 12 inches in height.
8. The clear distance between parallel bars shall not be less than the nominal diameter of the bars, nor less than 1 inch (TMS 402-16 6.1.3). Joint reinforcement shall have cover not less than 5/8". (TMS 402-16 6.1.4.2)
9. The diameter of bend measured on the inside of reinforcing bars, other than for stirrups and ties, shall not be less than specified in table 6.1.8 (TMS 402-16 6.1.8.2)
10. All masonry below grade shall be solid grouted.
11. Control joint spacing not to exceed 30'-0". See Architectural for locations.

MASONRY AND STONE VENEER

1. Masonry veneer materials, construction, and quality shall conform to 2018 IBC 2103-2105 and TMS 402-16 Chap. 6.
2. Lintels
   2.1. Veneer shall not support any vertical load other than the dead load of the veneer above. Veneer above openings shall be supported on lintels of noncombustible materials. Lintels shall have 1 inch of bearing for each 1 foot of span, but not less than 4 inches of bearing.
3. Anchorage
   3.1. Veneer shall be anchored to the supporting wall framing with hot-dipped galvanized metal ties. (Strand wire or corrugated sheet metal)
   3.2. Engage all anchor ties with a No. 9 gage wire in the center of the veneer and embedded in the mortar joint. (R703.8.4.1)
   3.3. Each tie shall be spaced not more than 16 inches on center horizontally and vertically and shall support not more than 2 square feet of wall area. Additional metal ties shall be provided around all wall openings greater than 16 inches in either dimension. (R703.8.4.1)

WOOD

1. Wood materials, quality, and construction shall conform to 2018 IBC Chapter 23 and Table 2304.10.
2. Structural lumber (2018 IBC 2303.1.1-9, 2018 NDS)
   2.1. Bearing walls: Douglas-Fir Larch (DF) Stud (ASTM D 1990, DOC PS 20)
   2.2. Posts: Douglas-Fir Larch (DF) Stud (ASTM D 1990, DOC PS 20)
   2.3. Beams and headers: Douglas-Fir Larch (DF) No. 2 (ASTM D 1990, DOC PS 20)
   2.4. Heavy timber: Douglas-Fir Larch (DF) No. 1 (ASTM D 1990, DOC PS 20)
   2.5. Sill plates: Preservative-treated wood, redwood (AWPA U1 M4)
   2.6. Naturally durable or preservative-treated wood shall be used where structural lumber is 18 inches or closer to exposed ground; where structural lumber is in contact with exterior masonry or concrete walls below grade; where sleepers, sills, posts, and columns are on a concrete or masonry slab or footing that is in direct contact with earth; and where structural lumber is attached directly to exterior masonry or concrete walls, unless a 0.5 inch air space on top, sides, and end is provided (2018 IBC 2304.12).
3. Structural logs (ASTM D 3957) - ICC - 400 standard for the design and construction of log structures
4. Structural glued-laminated timber (2018 IBC 2303.1.3, 2018 NDS 5.1.1)
   4.1. Single span: 24F-1.8E (24F-V4) (ASTM D 3737, ANSI/AITC A190.1)
   4.2. Multiple span: 24F-1.8E Balanced layup (24F-V8) (ASTM D 3737, ANSI/AITC A190.1)
   4.3. Cantilever span: 24F-1.8E Balanced layup (24F-V8) (ASTM D 3737, ANSI/AITC A190.1)
5. Structural composite lumber and engineered wood (2018 IBC 2303.1.10, 2018 NDS 8.1.1)
   5.1. Laminated strand lumber (LSL)
      5.1.1. Ex = 1.3E (ASTM D 5456)
      5.1.2. Ex = 1.5E (ASTM D 5456)
      5.1.3. Ex = 1.55E (ASTM D 5456)
      5.1.4. 1.125 inch APA Performance-Rated (or equivalent) rim board - (2018 IBC 2303.1.13, ASTM 7672, ANSI/APA PRR410)
   5.2. Laminated veneer lumber (LVL)
      5.2.1. Ex = 2.0E (ASTM D 5456)
   5.3. Parallel strand lumber (PSL)
      5.3.1. Ex = 2.0E (beams) (ASTM D 5456)
      5.3.2. Ex = 1.8E (columns) (ASTM D 5456)
   5.4. Prefabricated wood I-joist (2018 IBC 2303.1.2, 2018 NDS 7.1.1) (ASTM D 5055)
6. Wood structural panels (2018 IBC 2304.8, 2018 NDS 9.1.3)
   6.1. Roof, floor, and wall sheathing: oriented strand board (OSB) (DOC PS 1,2).
   6.2. Sheathing shall be manufactured with exterior glue and not less than 4X8 feet, except at boundaries and at changes in framing (2018 IBC 2305.1, AWC SDPWS-2015).
   6.3. Wall sheathing
      6.3.1. Oriented strand board (OSB) (DOC PS 1,2)
      6.3.2. All panel joints in walls shall occur over studs or blocking using a minimum of 8d common nails spaced a maximum of 6 inches at panel edges and 12 inches at intermediate framing (2018 IBC 2306.3).
   6.4. Roof and floor sheathing shall be placed perpendicular to supporting framing. Stagger sheathing joints.
7. Fasteners
   7.1. Nails (2018 IBC 2303.6, 2018 NDS Table L4) (ASTM F 1667)

Pennyweight	Common	Box	Sinker
7.1.1. 8d =	0.131" X 2.5"	0.113" X 2.5"	0.113" X 2.375"
7.1.2. 10d =	0.148" X 3.0"	0.128" X 3.0"	0.120" X 2.875"
7.1.3. 16d =	0.162" X 3.5"	0.135" X 3.5"	0.148" X 3.250"
7.1.4. 20d =	0.192" X 4.0"	0.148" X 4.0"	0.177" X 3.750"
7.1.5. 30d =	0.207" X 4.5"	0.148" X 4.5"	0.192" X 4.250"

   7.2. Staples (2018 IBC 2303.6)
      7.2.1. 16 gage = 1.5X0.4375 inch crown (ASTM F 1667)
   7.3. Bolts (2018 NDS 12.1.3, Table L1)
      7.3.1. Connector bolts (A307)
      7.3.2. Anchor bolts (A307) with a 3X3X0.229 inch washer (2018 IBC 2308.3.1) and 7" min embedment.
      7.3.3. Bolt holes shall be drilled with a bit 1/32 inch to 1/16 inch larger than the nominal bolt diameter.
   7.4. Lag Screws (2018 NDS 12.1.4, Table L2) (A307)
      7.4.1. Lag screws shall be inserted in a drilled pilot hole that is 60%-75% of the shank diameter by turning with a wrench. Do not drive screws with a hammer. Lag screws shall be provided with an oversized washer .
   7.5. Fasteners in preservative-treated and fire-retardant-treated wood shall be of hot dipped zinc-coated galvanized steel, silicon bronze or copper (2018 IBC 2304.10.5).
   7.6. Sheathing fasteners shall be driven so the head or crown is flush with the sheathing surface (2018 IBC 2304.10.2).
8. Joist hangers and connectors (2018 IBC 2303.5)
   8.1. Hanger hardware and other wood connections shall be designed to carry the capacity of the supporting members.
9. Floor framing (2018 IBC 2308.4.2)
   9.1. Joists shall not have less than 1.5 inches of bearing on wood or metal, or less than 3 inches on masonry (2018 IBC 2308.4.2.2). Pre-fabricated wood I-joists shall have minimum bearing according to the manufacturer's recommendations and specifications.
   9.2. Joists shall be supported laterally at the ends and at each support by full-depth solid blocking, except where nailed to a header or band or rim joist. Solid blocking shall not be less than 2 inches thick (2018 IBC 2308.4.2.3).
   9.3. Where the nominal depth-to-thickness ratio of the framing member exceeds 6:1, there shall be one line of bridging for each 8 feet of span. Bridging shall consist of not less than 1X3 inch lumber, metal bracing, or full-depth solid blocking (2018 IBC 2308.4.6).
   9.4. Notches on the ends of joists shall not exceed one-fourth the joist depth. Holes bored in joists shall not be within 2 inches of the top or bottom of the joist. Notches in the top or bottom of joists shall not exceed one-sixth the depth and shall not be located in the middle third of the span (2018 IBC 2308.4.2.4).
   9.5. The diameter of holes bored or cut into structural floor members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch (R502.8.1).
10. Wall construction (2018 IBC 2308.5)
   10.1. Studs shall be placed with their wide dimension perpendicular to the wall. Not less than three studs shall be installed at each corner of an exterior wall (2018 IBC 2308.5.2).
   10.2. Bearing and exterior wall studs shall be capped with 2-inch thick nominal double top plates, have a width at least equal to the width of the studs, and shall be installed to provide overlapping at corners and intersections with other partitions. End joints in partitions shall be offset at least 48 inches, and shall be nailed with not less than eight 16d common face nails on each side of the joint. (2018 IBC 2308.5.3.2).
   10.3. In nonbearing walls and partitions studs shall be capped with no less than a single top plate installed to provide overlapping at corners and at intersections with other walls and partitions. The plate shall be continuously tied at joints by solid blocking at least 16 inches in length and equal in size to the plate or metal ties with spliced sections fastened on each side of the joint (2018 IBC 2308.5.4).
   10.4. Studs shall have full bearing on a 2-inch thick nominal (or larger) bottom plate or sill having a width at least equal to the width of the stud (2018 IBC 2308.5.3.1).
   10.5. Bearing partitions parallel to joists shall be supported on beams, girders, doubled joists, walls or other bearing partitions. Bearing partitions perpendicular to joists shall not be offset from supporting girders, walls or partitions more than the joist depth unless noted otherwise (2018 IBC 2308.4.5).
   10.6. In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched to a depth not exceeding 25 percent of its width. In nonbearing partitions, cutting or notching of studs to a depth of not greater than 40 percent of the width is permitted (2018 IBC 2308.5.9).
   10.7. A hole with a diameter not greater than 40 percent of the stud width is permitted to be bored in any wood stud. In no case shall the edge of the bored hole be nearer than 0.625 inches to the edge of the stud. Bored holes shall not be located at the same section of stud as a cut or notch (2018 IBC 2308.5.10).
   10.8. Bearing walls without wood sheathing or gypsum wall board on either side shall have blocking between wall studs at mid-height.
   10.9. Studs shall be spaced at 16 inches on center for exterior walls, interior bearing walls, and shear walls, unless noted otherwise on the plans.
11. Posts and columns
   11.1. Columns shall be as wide as the member they support, laterally supported at all floor levels, and extend down through the structure to the foundation. Provide squash blocking at rim joist below all columns, trimmers, and posts.
   11.2. Wood columns and posts shall be framed to provide full end bearing (2018 IBC 2304.10.7).
   11.3. Posts and columns shall be supported by concrete piers or metal pedestals projecting above concrete or masonry floors or decks exposed to weather or water splash, or in basements, and which support permanent structures, unless naturally durable or preservative-treated wood is used. The pedestal shall project at least 6 inches above exposed earth and at least 1 inch above floors.
12. Roof and ceiling framing (2018 IBC 2308.7).
   12.1. Roof rafters and ceiling joists shall be supported laterally to prevent rotation and lateral displacement in accordance with 2018 IBC 2308.7.8.
   12.2. Rafters and joists over three feet long shall be supported using hanger hardware if not supported by bearing.

PREFABRICATED METAL PLATE WOOD TRUSSES

1. Prefabricated metal plate wood trusses shall be designed in accordance with 2018 IBC 2303.4 and shall conform to the structural specifications and design criteria.
2. The truss designer shall provide a truss package that includes the following items:
   2.1. Design drawings of each individual truss (2018 IBC 2303.4.3).
   2.2. Truss placement diagram for the project (2018 IBC 2303.4.2).
   2.3. Truss member permanent bracing specification (2018 IBC 2303.4.1.2).
3. Transfer of loads and anchorage of each truss to the supporting structure shall be approved by the registered design professional in responsible charge (2018 IBC 2303.4.4).
4. Truss members and components shall not be cut, notched, drilled, spliced or otherwise altered in any way without written concurrence and approval of the registered design professional in responsible charge. Alterations resulting in the addition of loads to any member (e.g. HVAC equipment) shall not be permitted without verification that the truss is capable of supporting such additional loading (2018 IBC 2303.4.5).

STEEL

1. Structural steel work shall conform to 2018 IBC 2205, AISC 341-16, AISC 358-16, and AISC 360-16.
2. Structural shapes
   2.1. W: fy = 50 ksi (ASTM A992)
   2.2. M,S,C,MC, and L: fy = 36 ksi (ASTM A36)
   2.3. HP: fy = 50 ksi (ASTM A572 Gr. 50)
   2.4. HSS Rectangular: fy = 46 ksi (ASTM A500 Gr.B)
   2.5. HSS Round: fy = 42 ksi (ASTM A500 Gr.B)
   2.6. Pipe: fy = 35 ksi (ASTM A53 Gr.B)
   2.7. All structural steel shall be properly primed and painted.
3. Plates and bars: fy = 36 ksi (ASTM A36)
4. Structural fasteners
   4.1. High-strength bolts: fu = 120-150 ksi (ASTM F3125)
   4.2. Common bolts: fu = 60 ksi (ASTM A307 Gr. A)
      4.2.1. Nuts (ASTM A563)
      4.2.2. Washers (ASTM F436)
      4.2.3. Steel to steel bolted connections shall be made with high strength-bolts, unless noted otherwise. Bolts shall carry the identifying mark of three radial lines. All other bolted connections shall be made with bolts and nuts conforming to ASTM A307 unless note otherwise. Bolted connections shall be tightened and shall have washers as required by AISC unless noted otherwise. Enlarging holes shall be accomplished by means of reaming. Do not use a torch on any bolt holes.
   4.3. Shear studs: fu = 65 ksi (ASTM A108)
   4.4. Threaded rods: fy = 36 ksi (ASTM A36)
   4.5. Anchor rods: fy = 36 ksi (ASTM F1554 Gr. 36)
5. Steel deck fy = 36 ksi (ASTM A1008)
6. Welding fu = 70 ksi.
   6.1. Welding work shall comply with the American Welding Society (AWS) "Structural Welding Code," excluding items conflicting with AISC requirements.

POST-INSTALLED ANCHORS

1. Epoxy adhesive anchoring systems:
   1.1. Concrete: Hilti HIT-RE 500 V3 (ICC ES ESR-3814) or Simpson SET-XP (ICC ES ESR-2508) or USP/Mitek CIA-GEL 7000-C (IAMPO ER-473)
   1.2. Masonry (grouted): Hilti HIT RE100 (ICC ES ESR-3829) or Simpson SET (ICC ES ESR-1772) or USP/Mitek CIA-GEL 7000 (ICC ES ESR-1702)
   1.3. The calculated strength of anchorage assumes the following conditions for installation: 21 day minimum age of concrete, maximum short term concrete temperature= 150° F, maximum long term concrete temperature= 110° F, dry concrete surface, and normal weight concrete. See adhesive manufacturer notes for minimum temperature requirements. If conditions are otherwise, contact engineer for anchor specifications.
   1.4. Steel reinforcement and rods shall be embedded 10 bar diameters unless noted otherwise in the structural drawings and details. Where 10 bar diameters exceeds the member thickness minus minimum cover, steel reinforcement shall be embedded the member thickness minus minimum cover with a standard hook.
   1.5. Embedded portions of steel reinforcement and rods shall be clean, straight, and free of mill scale, rust and other coatings that impair the bond with the adhesive. Reinforcement must not be bent after installation (ICC ES ESR-3829).
   1.6. Installation of adhesive anchors shall be performed by personnel trained to install adhesive anchors.
2. Mechanical expansion anchors:
   2.1. Concrete: Hilti KWIK BOLT TZ (ICC ES ESR-1917)
   2.2. Masonry: Hilti KWIK BOLT 3 (ICC ES ESR-1385)
   2.3. Expansion anchors shall not be used in tensile load applications (e.g. hold-downs, moment frames).
3. Post-installed anchoring systems shall be installed according to the Manufacturer's Printed Installation Instructions (MPII). Hole cleaning method shall be based on drilling method and borehole conditions and shall conform to the manufacturer's instructions.

STRUCTURAL OBSERVATIONS

1. Where required by the Provisions of Section 1704.6.1 or 1704.6.2, the owner shall employ a registered design professional to perform structural observations as defined in 2018 IBC 202. Prior to the commencement of observations, the structural observer shall submit to the building official a written statement identifying the frequency and extent of the structural observations. At the conclusion of the work, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies which have not been resolved (2018 IBC 1704.6).

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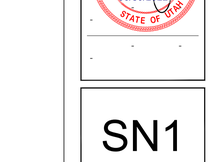
ORIGINAL PROJECT #
2540621
DRAWN BY:
RTM
CHECKED BY:
MCW
SCALE:
NTS
DATE:
22 JUN 2021

SHLUKER RESIDENCE (PARK CITY)

GENERAL STRUCTURAL NOTES

ISSUES / REVISIONS



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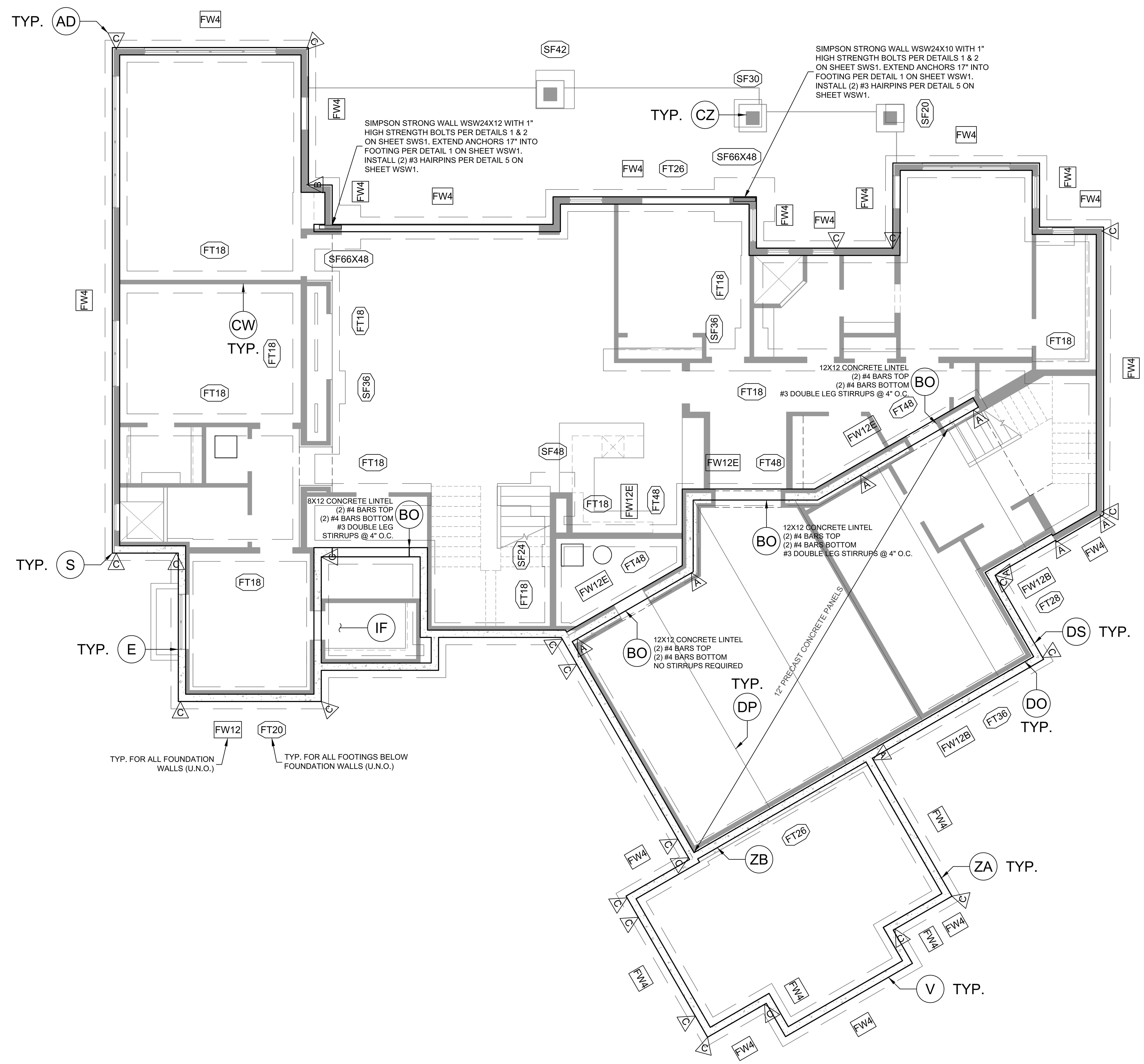

FOUNDATION WALL SCHEDULE					
			REINFORCEMENT		
MARK	HEIGHT	WIDTH	VERTICAL	HORIZONTAL	PLACEMENT
FW4	4'	8"	#4 @ 24"	(4) #4	CENTER
FW12	12'	8"	#5 @ 5"	(12) #4	CENTER
FW12B	12'	10"	#5 @ 5"	(15) #4	CENTER
FW12E	12'	12"	#4 @ 12"	(18) #4	CENTER

1. DOWEL VERTICAL BARS INTO FOOTING.
2. PLACE TOP AND BOTTOM BARS WITHIN 4" OF TOP AND BOTTOM OF WALL.
3. PLACE REINFORCEMENT IN CENTER OF WALL OR NEAR EACH FACE, AS NOTED.

FOOTING SCHEDULE					
				REINFORCEMENT	
MARK	WIDTH	LENGTH	THICKNESS	TRANSVERSE	LENGTHWISE
FT18	18 "	CONT.	10 "	-	(2) #4
FT20	20 "	CONT.	10 "	-	(2) #4
FT26	26 "	CONT.	10 "	-	(3) #4
FT28	28 "	CONT.	10 "	-	(3) #4
FT36	36 "	CONT.	12 "	#4 @ 9 "	(4) #4
FT48	48 "	CONT.	12 "	#5 @ 14 "	(4) #5
SF20	20 "	20 "	10 "	(2) #4	(2) #4
SF24	24 "	24 "	10 "	(3) #4	(3) #4
SF30	30 "	30 "	10 "	(3) #4	(3) #4
SF36	36 "	36 "	12 "	(4) #4	(4) #4
SF42	42 "	42 "	12 "	(5) #4	(5) #4
SF48	48 "	48 "	12 "	(6) #4	(6) #4
SF66X48	66 "	48 "	20 "	(9) #4	(12) #4

1. CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS AND SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS UNLESS NOTED OTHERWISE.
2. FOOTINGS AND FOUNDATIONS, EXCAVATIONS, GRADING, AND FILL SHALL COMPLY WITH THE PROVISIONS OF THE GEOTECHNICAL REPORT (SEE GSN)

HOLD-DOWN SCHEDULE				
MARK	HOLD-DOWN	MINIMUM FASTENERS	ANCHOR	POST
A	LSTHD8	10d X 2-1/2" (.148 X 2-1/2")	STRAP 8" EMBED.	(2) 2X POST
B	STHD10	10d X 2-1/2" (.148 X 2-1/2")	STRAP 10" EMBED.	(2) 2X POST
C	STHD14	10d X 2-1/2" (.148 X 2-1/2")	STRAP 14" EMBED.	(2) 2X POST
D	CS16 (11" END LENGTHS)	10d X 2-1/2" (.148 X 2-1/2")	(FLOOR STRAP)	(2) 2X POST

1. HOLD-DOWNS SHALL BE SIMPSON STRONG-TIE OR EQUIVALENT.
2. SHEAR WALL EDGE NAILING SHALL BE TO HOLD-DOWN POST.
3. STHD STRAPS SHALL BE "RJ" TYPE AT RIM JOIST LOCATIONS.

FOOTING AND FOUNDATION PLAN

3/16" = 1'-0"

ACUTE ENGINEERING, INC.
744 S 400 E
Orem, UT 84097
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info@acuteengineering.com

THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS. SEE CURRENT ISSUE OR REVISION DATE.

DIMENSIONS AND ELEVATIONS ARE SUPPLIED BY THE ARCHITECT. THEY MAY BE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

ORIGINAL PROJECT #
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3/16" = 1'-0"
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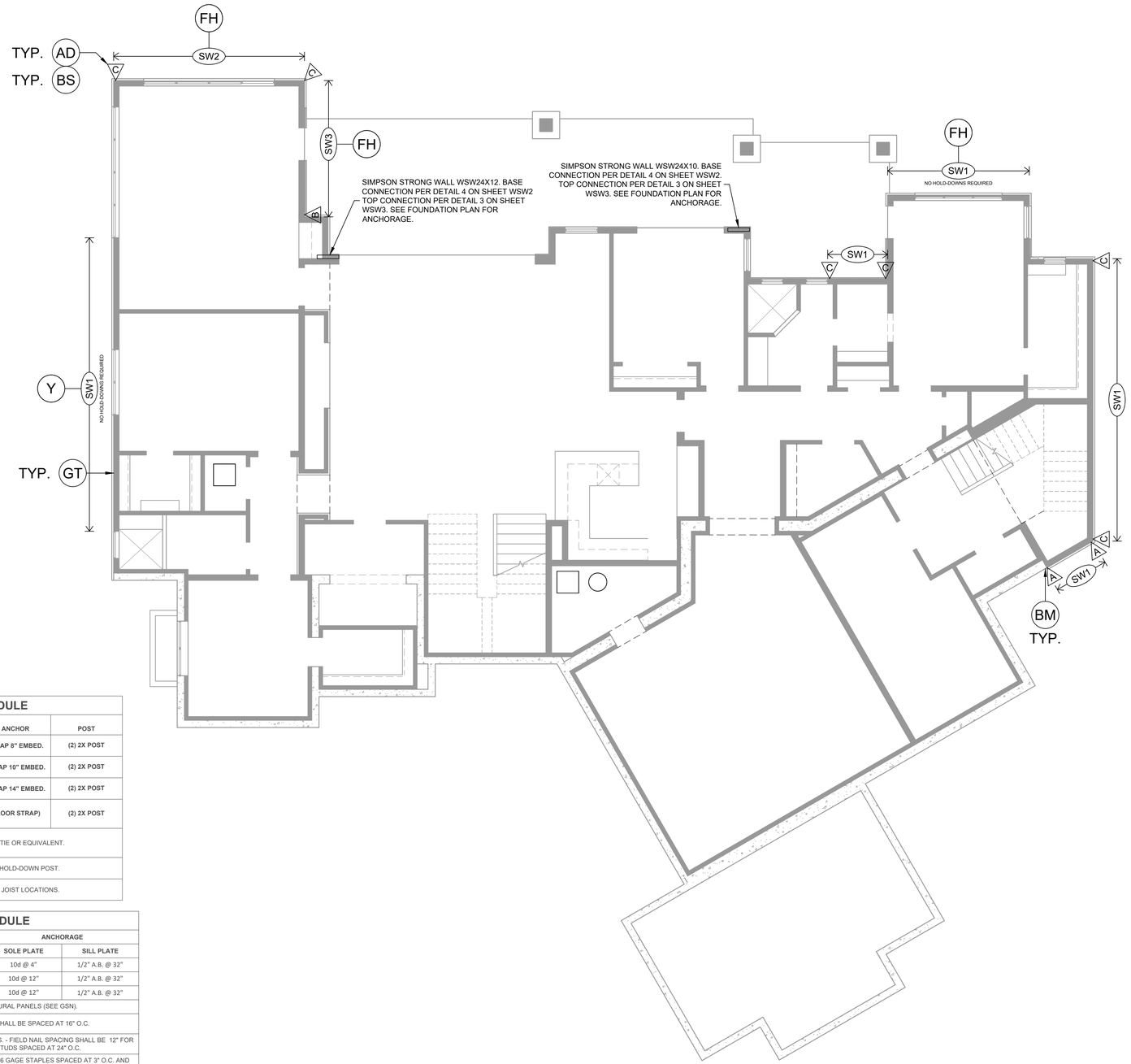
SHLUKER RESIDENCE (PARK CITY)

FOOTING AND FOUNDATION PLAN

ISSUES / REVISIONS

PROFESSIONAL ENGINEER
STATE OF UTAH
06/30/2021

S0-0



HOLD-DOWN SCHEDULE

MARK	HOLD-DOWN	MINIMUM FASTENERS	ANCHOR	POST
A	LSTHD8	10d X 2-1/2" (.148 X 2-1/2")	STRAP 8" EMBED.	(2) 2X POST
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C	STHD14	10d X 2-1/2" (.148 X 2-1/2")	STRAP 14" EMBED.	(2) 2X POST
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SHEAR WALL SCHEDULE

MARK	SHEATHING	EDGE NAILING	ABUTTING PANEL EDGE FRAMING	ANCHORAGE	
				SOLE PLATE	SILL PLATE
SW1	7/16"	8d @ 6"	2X	10d @ 4"	1/2" A.B. @ 32"
SW2	7/16"	8d @ 4"	2X	10d @ 12"	1/2" A.B. @ 32"
SW3	7/16"	8d @ 3"	3X or (2)2X	10d @ 12"	1/2" A.B. @ 32"

1. SHEATHING SHALL CONSIST OF WOOD STRUCTURAL PANELS (SEE GSN).
2. UNLESS NOTED ON DRAWINGS, EXTERIOR STUDS SHALL BE SPACED AT 16" O.C.
3. SHEATHING NAILS SHALL BE COMMON OR GALVANIZED BOX NAILS. - FIELD NAIL SPACING SHALL BE 12" FOR STUDS SPACED 16" O.C. OR LESS AND 6" O.C. FOR STUDS SPACED AT 24" O.C.
4. FOR SW1 ONLY, EDGE NAILS MAY BE SUBSTITUTED WITH 1-1/2" 16 GAGE STAPLES SPACED AT 3" O.C. AND FIELD NAILS MAY BE SUBSTITUTED WITH 16 GAGE STAPLES AT 12" O.C.
5. ANCHORAGE NAILS SHALL BE COMMON NAILS.
6. ANCHOR BOLTS SHALL HAVE A 3X3X0.229" WASHER AND 7" MIN EMBEDMENT. THE WASHER SHALL EXTEND TO WITHIN 1/2" FROM THE SHEATHING.
7. FOR SW3, SW4, SW7, AND SW8, (2) 2" NOMINAL FRAMING STITCH-NAILED TOGETHER WITH (2) 10d NAILS @ 6" MAY BE USED AT ABUTTING PANEL EDGES IN PLACE OF 3" NOMINAL FRAMING.

BASEMENT SHEAR WALL PLAN

3/16" = 1'-0"

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BASEMENT SHEAR WALL PLAN

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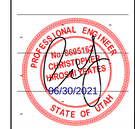

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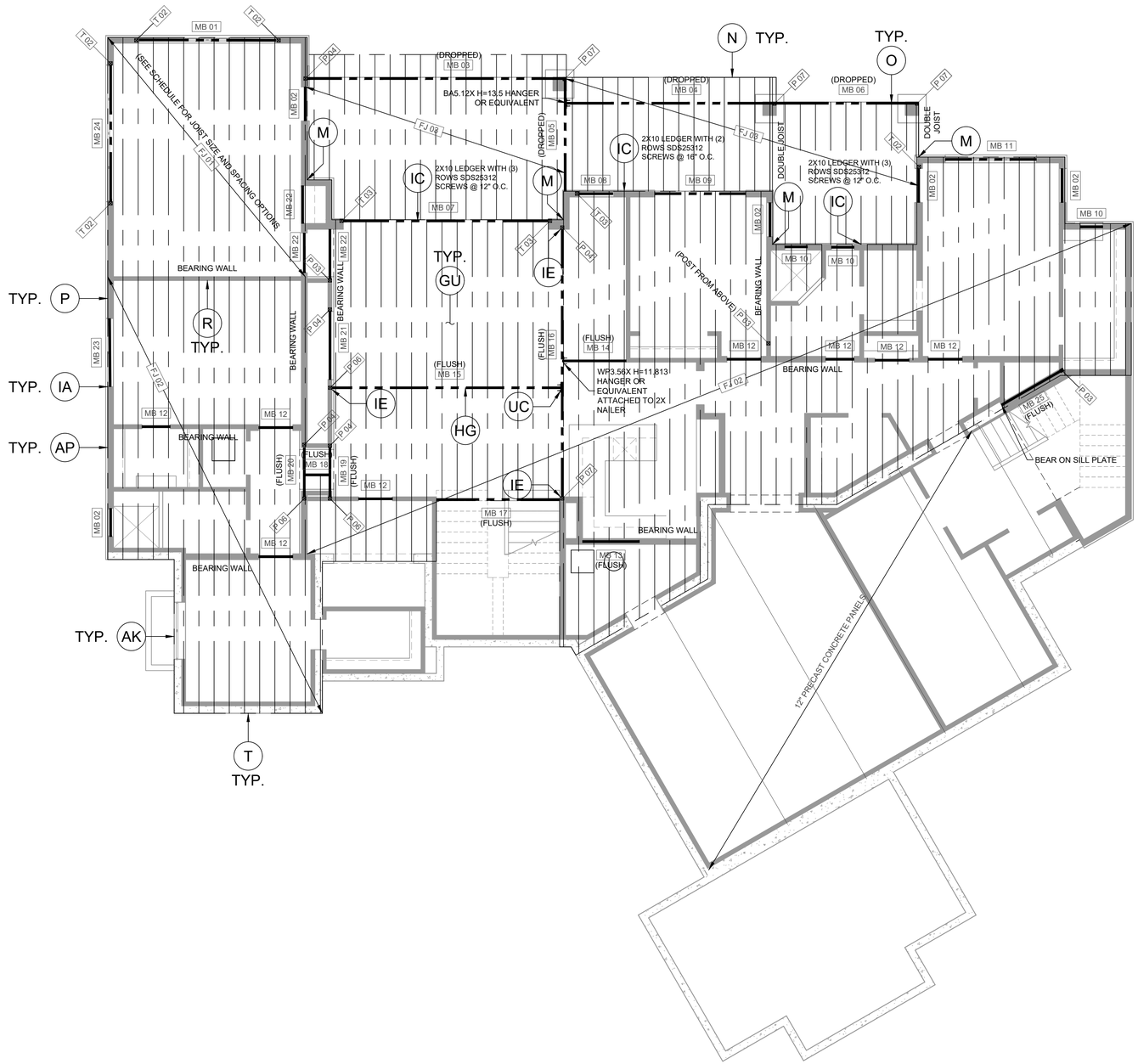

BEAM SCHEDULE	
MARK	TYPE
MB 01	(3) 1-3/4 X 9-1/2 LVL
MB 02	(2) 2 X 6
MB 03	5-1/8 X 18 GLB
MB 04	5-1/8 X 13-1/2 GLB
MB 05	5-1/8 X 9 GLB
MB 06	5-1/8 X 13-1/2 GLB
MB 07	(3) 1-3/4 X 16 LVL
MB 08	(3) 1-3/4 X 11-7/8 LVL
MB 09	(2) 1-3/4 X 9-1/2 LVL
MB 10	(2) 2 X 6
MB 11	(3) 2 X 10
MB 12	(2) 2 X 6
MB 13	(2) 1-3/4 X 11-7/8 LVL
MB 14	(2) 1-3/4 X 11-7/8 LVL
MB 15	W10X30
MB 16	W10X30
MB 17	(2) 1-3/4 X 11-7/8 LVL
MB 18	(2) 1-3/4 X 11-7/8 LVL
MB 19	(2) 1-3/4 X 11-7/8 LVL
MB 20	(2) 1-3/4 X 11-7/8 LVL
MB 21	(2) 1-3/4 X 9-1/2 LVL
MB 22	(2) 2 X 10
MB 23	(3) 2 X 10
MB 24	(3) 1-3/4 X 14 LVL
MB 25	(2) 1-3/4 X 11-7/8 LVL
1. DIMENSIONAL LUMBER DF #2 U.N.O.	
2. LAMINATED VENEER LUMBER (LVL) 2.0E	
3. GLUED-LAMINATED TIMBER (GLB) 24F-1.8E	
4. STEEL W-SHAPES A992-50	
5. SUFFIXES (A, B, ETC.) DENOTE ALTERNATIVES FOR THE SPECIFIED BEAM	
6. ALL HEADERS IN BEARING WALLS TO HAVE MIN. (1) TRIMMER & (1) KING STUD U.N.O. ALL OTHER BEAMS AND GIRDER TRUSSES TO HAVE MIN. (2) 2X SUPPORTS U.N.O.	

SHEATHING SCHEDULE	
TYPE	THICKNESS
FLOOR	3/4" OSB (48/24 SPAN RATING)
ROOF	19/32" OSB (40/20 SPAN RATING)
1. SHEATHING PERPENDICULAR TO SUPPORTS.	
2. FLOOR SHEATHING NAILED & GLUED TO SUPPORT	
3. 8d COMMON NAILS 6" O.C. (EDGES) 12" O.C. (FIELD)	
4. NAILING NO CLOSER THAN 3/8" FROM PANEL EDGE	

FLOOR JOIST SCHEDULE	
MARK	TYPE
FJ 01 A	11-7/8" TJI 360 @ 12" O.C.
FJ 01 B	11-7/8" TJI 560 @ 16" O.C.
FJ 02	11-7/8" TJI 210 @ 16" O.C.
FJ 03	2 X 10 @ 16" O.C.
1. DIMENSIONAL LUMBER DF #2 U.N.O.	
2. SUFFIXES (A, B, ETC.) DENOTE ALTERNATIVES FOR THE SPECIFIED JOIST	

POST SCHEDULE	
MARK	TYPE
P 03	(3) 2X POST
P 04	(4) 2X POST
P 06	4 X 6 POST
P 07	6 X 6 POST
T 02	(2) TRIM
T 03	(3) TRIM
T 04	(4) TRIM
T 05	(1) TRIM (2) KING
1. PARALLEL STRAND LUMBER (PSL) 1.8E	
2. STEEL PIPE (PIPE STD) A53	
3. STEEL HOLLOW SECTION (HSS) A500	
4. STEEL COLUMNS REQUIRE BEARING PLATES	
5. CONTINUE POSTS TO FDN / STRUCT MEMBER	

MAIN FLOOR FRAMING PLAN

3/16" = 1'-0"

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MAIN FLOOR FRAMING PLAN

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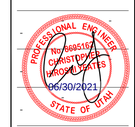

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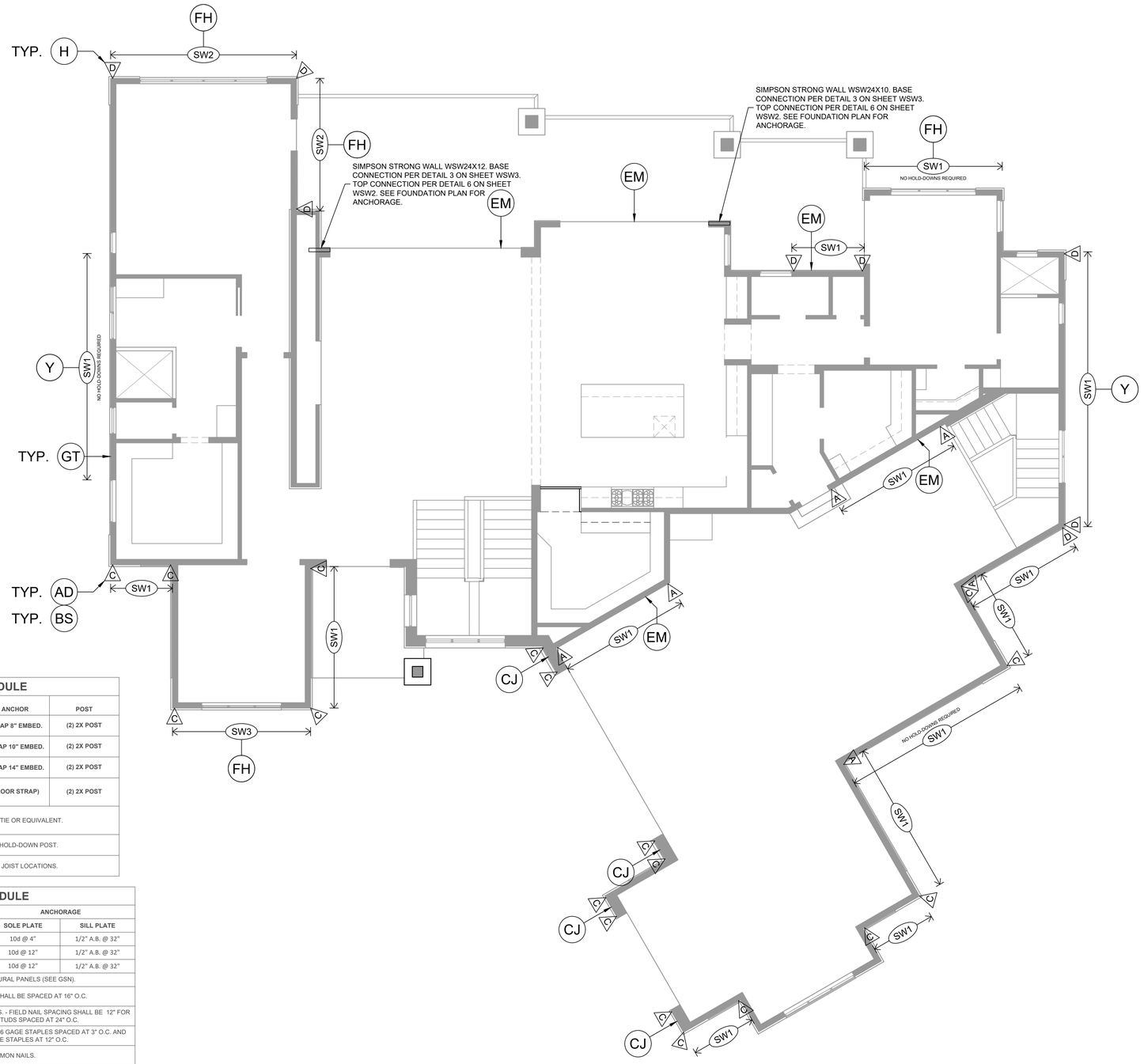

HOLD-DOWN SCHEDULE

MARK	HOLD-DOWN	MINIMUM FASTENERS	ANCHOR	POST
A	LSTHD8	10d X 2-1/2" (.148 X 2-1/2")	STRAP 8" EMBED.	(2) 2X POST
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C	STHD14	10d X 2-1/2" (.148 X 2-1/2")	STRAP 14" EMBED.	(2) 2X POST
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1. HOLD-DOWNS SHALL BE SIMPSON STRONG-TIE OR EQUIVALENT.
2. SHEAR WALL EDGE NAILING SHALL BE TO HOLD-DOWN POST.
3. STHD STRAPS SHALL BE "RJ" TYPE AT RIM JOIST LOCATIONS.

SHEAR WALL SCHEDULE

MARK	SHEATHING	EDGE NAILING	ABUTTING PANEL EDGE FRAMING	ANCHORAGE	
				SOLE PLATE	SILL PLATE
SW1	7/16"	8d @ 6"	2X	10d @ 4"	1/2" A.B. @ 32"
SW2	7/16"	8d @ 4"	2X	10d @ 12"	1/2" A.B. @ 32"
SW3	7/16"	8d @ 3"	3X or (2)2X	10d @ 12"	1/2" A.B. @ 32"

1. SHEATHING SHALL CONSIST OF WOOD STRUCTURAL PANELS (SEE GSN).
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4. FOR SW1 ONLY, EDGE NAILS MAY BE SUBSTITUTED WITH 1-1/2" 16 GAGE STAPLES SPACED AT 3" O.C. AND FIELD NAILS MAY BE SUBSTITUTED WITH 16 GAGE STAPLES AT 12" O.C.
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7. FOR SW3, SW4, SW7, AND SW8, (2) 2" NOMINAL FRAMING STITCH-NAILED TOGETHER WITH (2) 10d NAILS @ 6" MAY BE USED AT ABUTTING PANEL EDGES IN PLACE OF 3" NOMINAL FRAMING.

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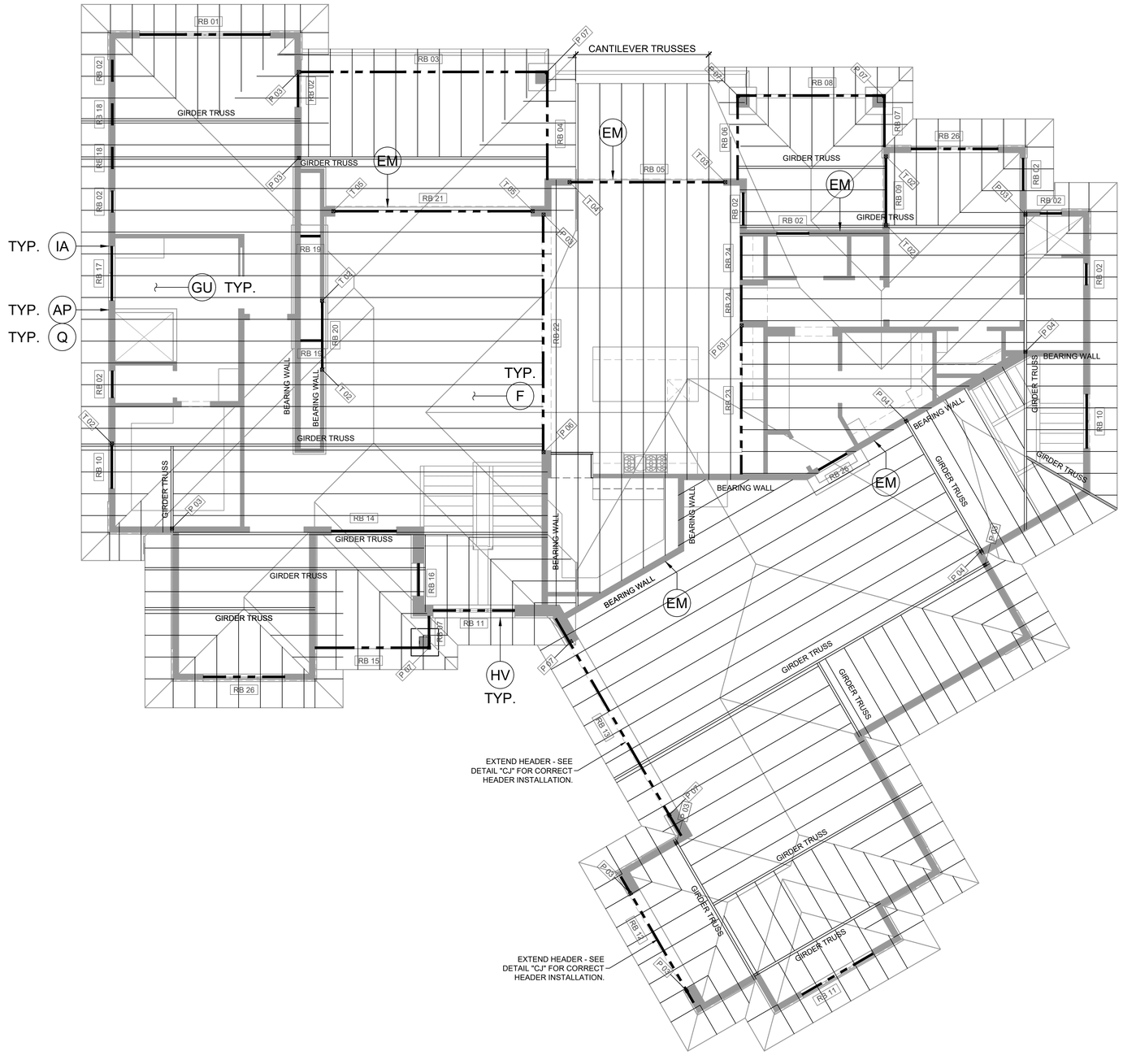
MAIN FLOOR SHEAR WALL PLAN

ISSUES / REVISIONS

S1-1



BEAM SCHEDULE

MARK	TYPE
RB 01	(3) 1-3/4 X 9-1/2 LVL
RB 02	(2) 2 X 6
RB 03	5-1/8 X 18 GLB
RB 04	5-1/8 X 9 GLB
RB 05	5-1/8 X 22-1/2 GLB
RB 06	(3) 2 X 10
RB 07	(2) 2 X 8
RB 08	5-1/8 X 10-1/2 GLB
RB 09	(3) 2 X 10
RB 10	(3) 2 X 6
RB 11	(3) 2 X 8
RB 12	(2) 1-3/4 X 11-7/8 LVL
RB 13	6-3/4 X 21 GLB
RB 14	(2) 2 X 6
RB 15	5-1/8 X 9 GLB
RB 16	(3) 2 X 6
RB 17	(3) 2 X 8
RB 18	(3) 2 X 8
RB 19	(2) 2 X 6
RB 20	(2) 1-3/4 X 9-1/2 LVL
RB 21	5-1/8 X 13-1/2 GLB
RB 22	5-1/8 X 19-1/2 GLB
RB 23	(3) 1-3/4 X 11-7/8 LVL
RB 24	(3) 2 X 6
RB 25	(2) 2 X 6
RB 26	(3) 2 X 10

1. DIMENSIONAL LUMBER DF #2 U.N.O.
2. LAMINATED VENEER LUMBER (LVL) 2.0E
3. GLUED-LAMINATED TIMBER (GLB) 24F-1.8E
4. STEEL W-SHAPES A992-50
5. SUFFIXES (A, B, ETC.) DENOTE ALTERNATIVES FOR THE SPECIFIED BEAM
6. ALL HEADERS IN BEARING WALLS TO HAVE MIN. (1) TRIMMER & (1) KING STUD U.N.O. ALL OTHER BEAMS AND GIRDER TRUSSES TO HAVE MIN. (2) 2X SUPPORTS U.N.O.

WOOD TRUSS LOADS

GROUND SNOW LOAD, Pg = 90 PSF
FLAT ROOF SNOW LOAD = 63 PSF
TOP CHORD DEAD LOAD = 10 PSF
BOTTOM CHORD DEAD LOAD = 5 PSF
1. DESIGN SNOW LOADS SHALL BE IN ACCORDANCE WITH ASCE 7-16 CHAP.7 (2018 IBC 1608.1)

SHEATHING SCHEDULE

TYPE	THICKNESS
FLOOR	3/4" OSB (48/24 SPAN RATING)
ROOF	19/32" OSB (40/20 SPAN RATING)
1. SHEATHING PERPENDICULAR TO SUPPORTS.	
2. FLOOR SHEATHING NAILED & GLUED TO SUPPORT	
3. 8d COMMON NAILS 6" O.C. (EDGES) 12" O.C. (FIELD)	
4. NAILING NO CLOSER THAN 3/8" FROM PANEL EDGE	

POST SCHEDULE

MARK	TYPE
P 03	(3) 2X POST
P 04	(4) 2X POST
P 06	4 X 6 POST
P 07	6 X 6 POST
T 02	(2) TRIM
T 03	(3) TRIM
T 04	(4) TRIM
T 05	(1) TRIM (2) KING
1. PARALLEL STRAND LUMBER (PSL) 1.8E	
2. STEEL PIPE (PIPE STD) A53	
3. STEEL HOLLOW SECTION (HSS) A500	
4. STEEL COLUMNS REQUIRE BEARING PLATES	
5. CONTINUE POSTS TO FDN / STRUCT MEMBER	

ROOF FRAMING PLAN

3/16" = 1'-0"

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ROOF FRAMING PLAN

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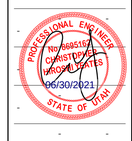

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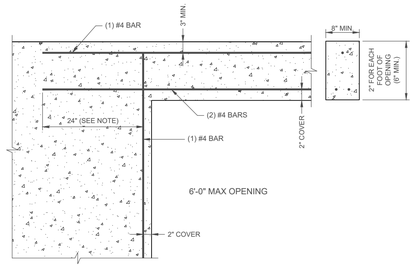
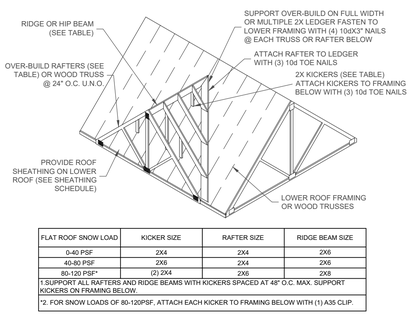


NOTE: EXTEND REINFORCEMENT 24" BEYOND OPENING ON EACH SIDE. WHERE SPACE IS LIMITED, EXTEND 12" BEYOND OPENING WITH 90° HOOK.

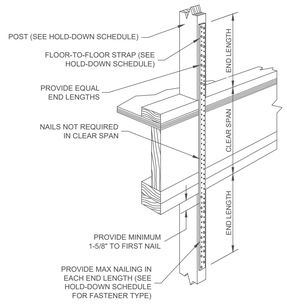
E FOUNDATION WALL - CONCRETE LINTEL
NO SCALE



FLAT ROOF SNOW LOAD	KICKER SIZE	RAFTER SIZE	RIDGE BEAM SIZE
0-40 PSF	2X4	2X4	2X6
40-80 PSF	2X6	2X4	2X6
80-120 PSF*	(2) 2X4	2X6	2X8

1. SUPPORT ALL RAFTERS AND RIDGE BEAMS WITH KICKERS SPACED AT 48" O.C. MAX. SUPPORT KICKERS ON FRAMING BELOW.
*2. FOR SNOW LOADS OF 80-120PSF, ATTACH EACH KICKER TO FRAMING BELOW WITH (1) A35 CLIP.

F ROOF FRAMING - OVER BUILD FRAMING
NO SCALE



H HOLD-DOWN - FLOOR STRAP
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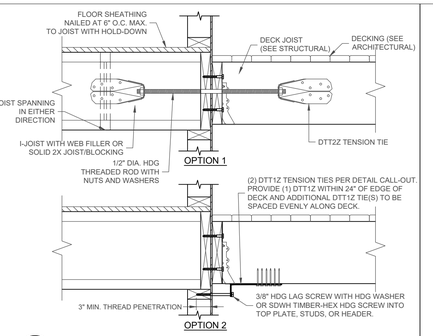

M DECK/BALCONY - TENSION TIE
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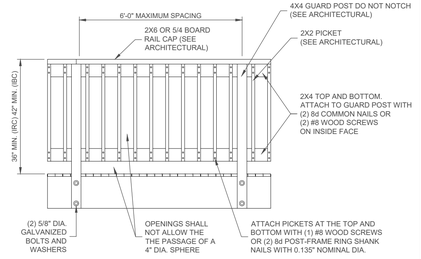

N DECK / BALCONY -GUARD RAIL
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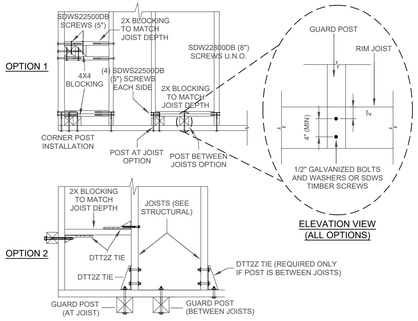

O DECK / BALCONY - WOOD GUARD POST
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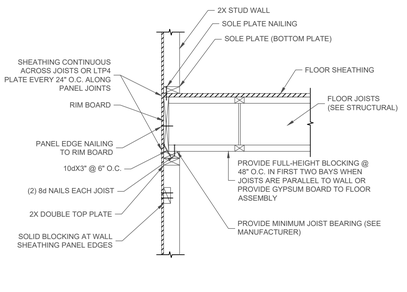
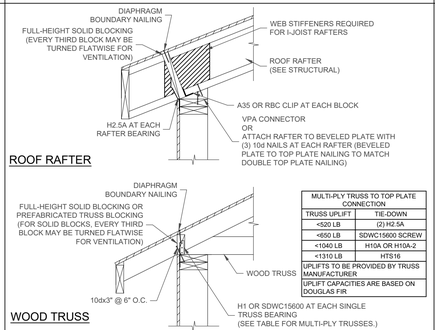
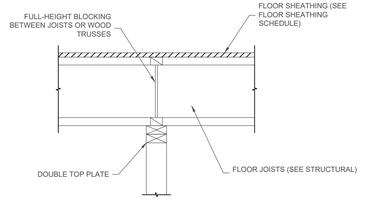


P BEARING WALL - EXTERIOR TO FLOOR(150 PLF UNIT SHEAR)
NO SCALE

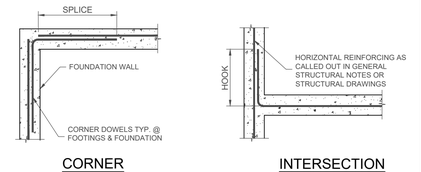


MULTI-PLY TRUSS TO TOP PLATE CONNECTION	
TRUSS UPLIFT	TIE-DOWN
<520 LB	(2) H2.5A
<650 LB	SDWC15600 SCREW
<1040 LB	H10A OR H10A-2
<1310 LB	HTS16
UPLIFTS TO BE PROVIDED BY TRUSS MANUFACTURER	
UPLIFT CAPACITIES ARE BASED ON DOUGLAS FIR	

Q ROOF FRAMING - BLOCKING (150 PLF UNIT SHEAR)
NO SCALE

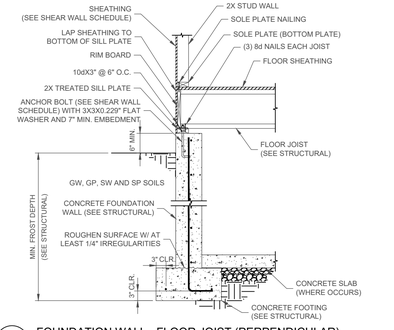


R BEARING WALL - INTERIOR TO FLOOR
NO SCALE

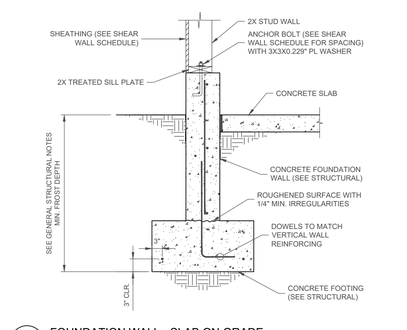


REQUIRED LAP LENGTH			
TYPE	CONCRETE	MASONRY	MIN.
SPLICE	40 BAR DIA.	48 BAR DIA.	24"
HOOK	12 BAR DIA.	20 BAR DIA.	12"

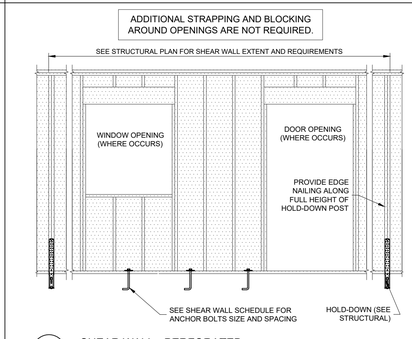
S FOUNDATION WALL - CORNER & INTERSECTION REINFORCING
NO SCALE



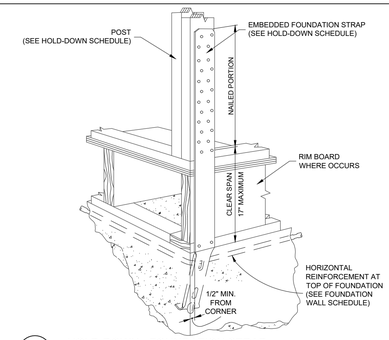
T FOUNDATION WALL - FLOOR JOIST (PERPENDICULAR)
NO SCALE



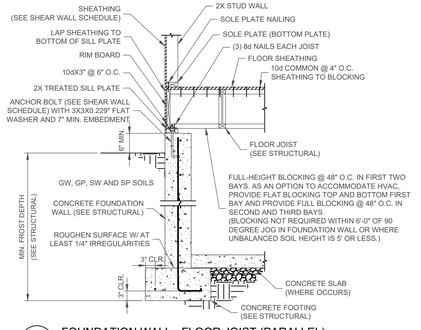
V FOUNDATION WALL - SLAB ON GRADE
NO SCALE



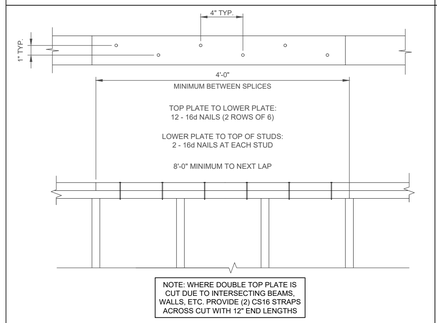
Y SHEAR WALL - PERFORATED
NO SCALE



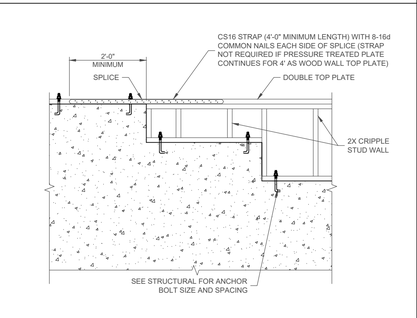
AD HOLD-DOWN - FOUNDATION STRAP
NO SCALE



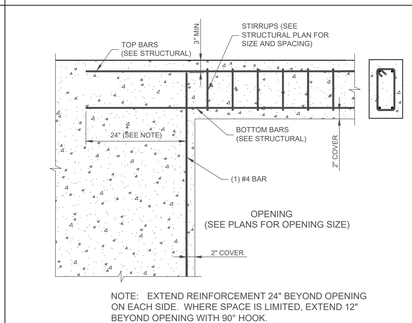
AK FOUNDATION WALL - FLOOR JOIST (PARALLEL)
NO SCALE



AP DIAPHRAGM - TOP PLATE SPLICE
NO SCALE

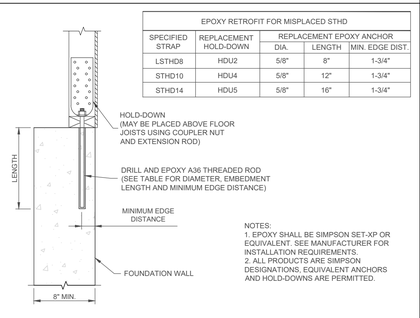


BM SHEAR TRANSFER - STEPPED FOUNDATION
NO SCALE



NOTE: EXTEND REINFORCEMENT 24" BEYOND OPENING ON EACH SIDE. WHERE SPACE IS LIMITED, EXTEND 12" BEYOND OPENING WITH 90° HOOK.

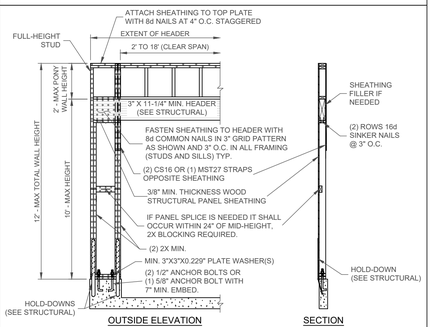
BO CONCRETE WALL - LINTEL
NO SCALE



EPOXY RETROFIT FOR MISPLACED STHD				
SPECIFIED STRAP	REPLACEMENT HOLD-DOWN	REPLACEMENT EPOXY ANCHOR		
		DIA.	LENGTH	MIN. EDGE DIST.
LSTHD8	HDU2	5/8"	8"	1-3/4"
STHD10	HDU4	5/8"	12"	1-3/4"
STHD14	HDU5	5/8"	16"	1-3/4"

NOTES:
1. EPOXY SHALL BE SIMPSON SET-XP OR EQUIVALENT. SEE MANUFACTURER FOR INSTALLATION REQUIREMENTS.
2. ALL PRODUCTS ARE SIMPSON DESIGNATIONS. EQUIVALENT ANCHORS AND HOLD-DOWNS ARE PERMITTED.

BS RETROFIT EPOXY ANCHOR IN FOUNDATION WALL
NO SCALE



CJ APA PORTAL FRAME - CONCRETE FOUNDATION
NO SCALE

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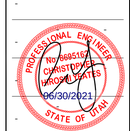
ORIGINAL PROJECT #
2540621
DRAWN BY:
RTM
CHECKED BY:
MCW
SCALE:
NTS
DATE:
22 JUN 2021

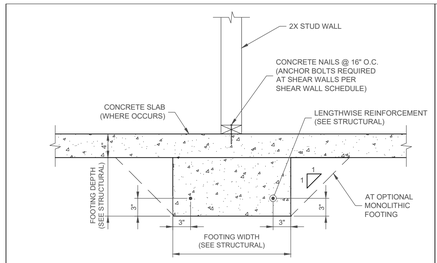
SHLUKER RESIDENCE (PARK CITY)

STRUCTURAL DETAILS

ISSUES / REVISIONS

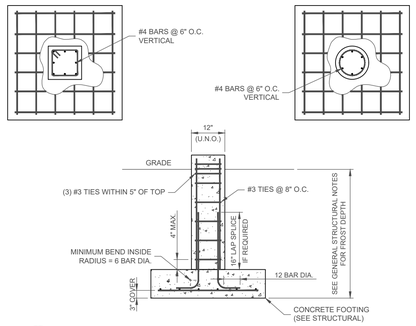


SD1

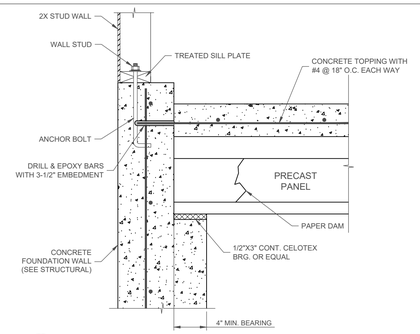


NOTE: FASTENERS IN PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER.

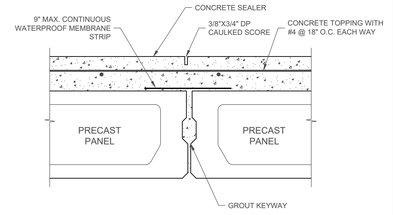
CW BEARING WALL - INTERIOR FOOTING
NO SCALE



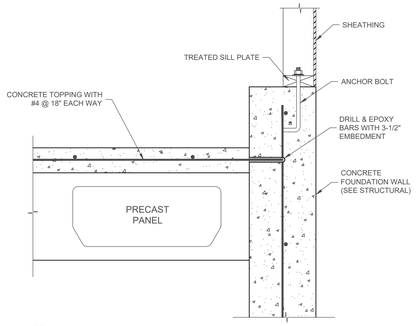
CZ FOOTING - CONCRETE PIER TO SPOT FOOTING
NO SCALE



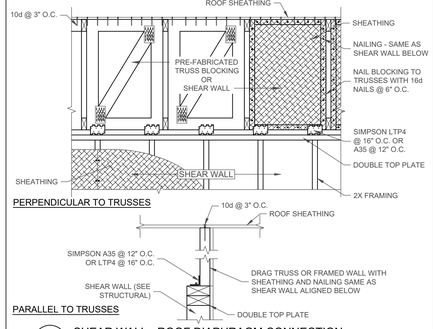
DO PRECAST PANEL - BEARING
NO SCALE



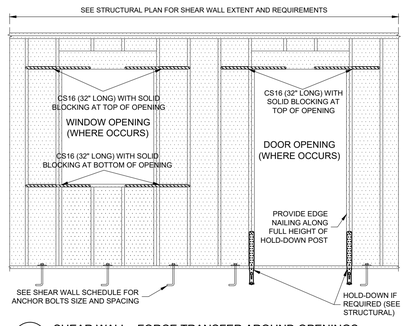
DP PRECAST PANEL - JOINT
NO SCALE



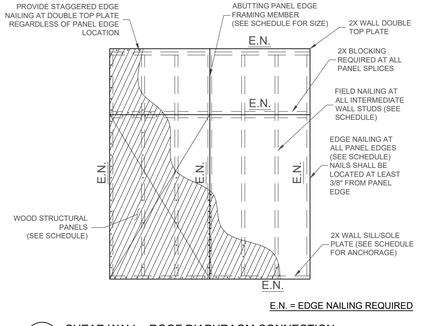
DS PRECAST PANEL - NON-BEARING
NO SCALE



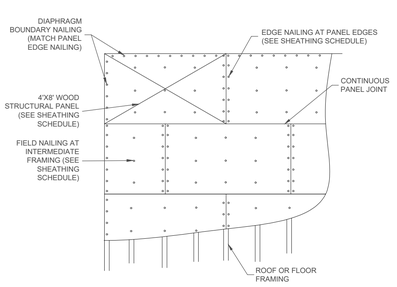
EM SHEAR WALL - ROOF DIAPHRAGM CONNECTION
NO SCALE



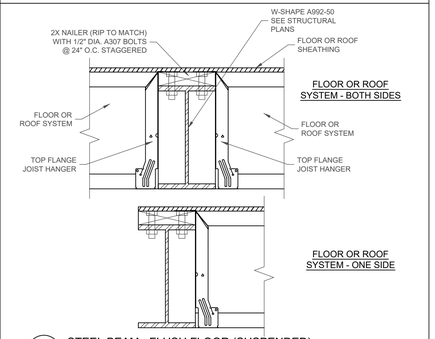
FH SHEAR WALL - FORCE TRANSFER AROUND OPENINGS
NO SCALE



GT SHEAR WALL - ROOF DIAPHRAGM CONNECTION
NO SCALE



GU WOOD STRUCTURAL PANEL DIAPHRAGM - UNBLOCKED
NO SCALE

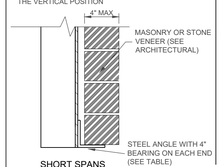


HG STEEL BEAM - FLUSH FLOOR (SUSPENDED)
NO SCALE

USE TABLE FOR SHORT SPANS ONLY

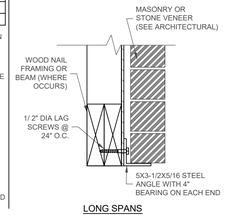
SIZE OF STEEL ANGLE (INCHES)	NO STORY ABOVE	ONE STORY ABOVE	TWO STORIES ABOVE
3X3X1/4	6'-0"	4'-6"	3'-0"
4X3X1/4	8'-0"	6'-0"	4'-6"
5X3-1/2X5/16	10'-0"	8'-0"	6'-0"
6X3-1/2X5/16	14'-0"	9'-6"	7'-0"

NOTE: LONG LEG OF THE ANGLE SHALL BE PLACED IN THE VERTICAL POSITION



SHORT SPANS

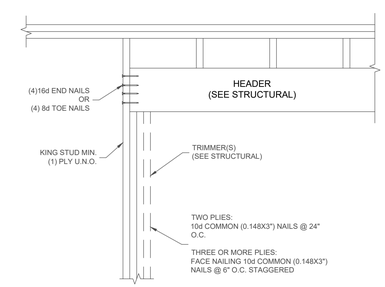
APPLY THE LONG SPAN DETAIL WHEN THE OPENING SPANS EXCEED THE LIMITS OF THE TABLE FOR SHORT SPANS



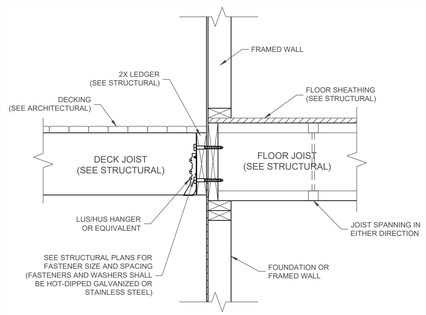
LONG SPANS

NOTE: STEEL LINTELS SHALL BE SHOP COATED WITH A RUST-INHIBITIVE PAINT OR MADE OF CORROSION-RESISTANT STEEL OR STEEL TREATED WITH COATINGS TO PROVIDE CORROSION RESISTANCE. (R703.8.3)

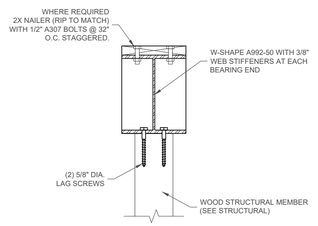
HV MASONRY/STONE VENEER - LINTEL (SUPPORT ABOVE OPENING)
NO SCALE



IA WOOD BEAM - WALL HEADER FRAMING
NO SCALE



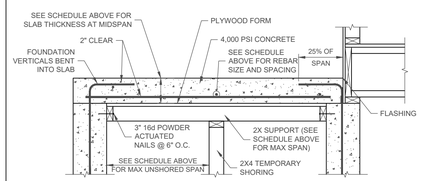
IC LEDGER - DECK TO RIM BOARD
NO SCALE



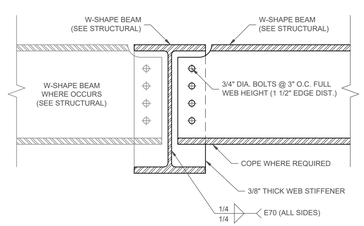
IE STEEL BEAM TO WOOD COLUMN CONNECTION
NO SCALE

SLAB THICKNESS AT MID-SPAN	MAX SLAB SPAN	REBAR SPACING	2X SUPPORT	MAX UNSHORED SPAN
6"	10'	#4 @ 18" O.C. EACH WAY	2X4 DF #2 @ 16" O.C.	4'-10"
			2X6 DF #2 @ 16" O.C.	7'-0"
8"	13'	#4 @ 12" O.C. EACH WAY	2X4 DF #2 @ 12" O.C.	4'-10"
			2X6 DF #2 @ 12" O.C.	7'-0"

NOTE: CONCRETE SLABS CAN HAVE A MAXIMUM SLOPE OF 2" OVER THE ENTIRE SLAB

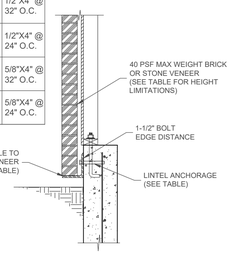


IF SUSPENDED SLAB
NO SCALE



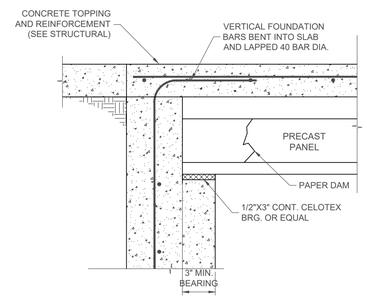
UC W-SHAPE BEAM - SHEAR CONNECTION
NO SCALE

VENEER HEIGHT	ANGLE	SET-EPOXY OPTION	TITEN HD OPTION
UP TO 15'	L4X4X1/4	1/2" DIA. BOLTS W/ 4" EMBED. @ 32" O.C.	1/2"X4" @ 32" O.C.
UP TO 20'	L4X4X1/4	1/2" DIA. BOLTS W/ 4" EMBED. @ 24" O.C.	1/2"X4" @ 24" O.C.
UP TO 29'	L4X4X3/8	5/8" DIA. BOLTS W/ 4" EMBED. @ 32" O.C.	5/8"X4" @ 32" O.C.
UP TO 39'	L4X4X3/8	5/8" DIA. BOLTS W/ 4" EMBED. @ 24" O.C.	5/8"X4" @ 24" O.C.



NOTE:
STEEL LINTELS SHALL BE SHOP COATED WITH A RUST-INHIBITIVE PAINT OR MADE OF CORROSION-RESISTANT STEEL OR STEEL TREATED WITH COATINGS TO PROVIDE CORROSION RESISTANCE. (R703.8.3)

ZA MASONRY/STONE VENEER (SUPPORT ON CONCRETE)
NO SCALE



ZB PRECAST PANEL - FOUNDATION BLOCKOUT (BEARING)
NO SCALE

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ORIGINAL PROJECT #
2540621
DRAWN BY:
RTM
CHECKED BY:
MCW
SCALE:
NTS
DATE:
22 JUN 2021

SHLUKER RESIDENCE (PARK CITY)

STRUCTURAL DETAILS

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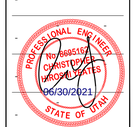
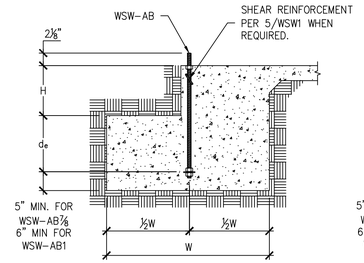
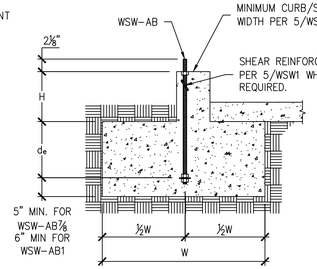


SD2



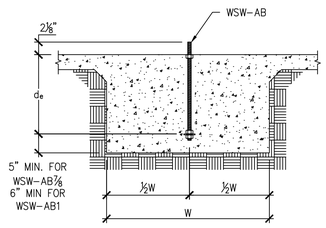
SLAB ON GRADE FOUNDATION



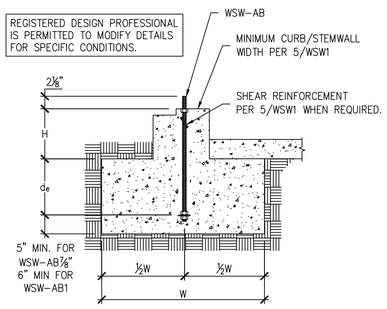
BRICK LEDGE FOUNDATION

NOTES :
1. SEE 2/WSW1 FOR DIMENSIONS AND ADDITIONAL NOTES.
2. SEE 5/WSW1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
3. MAXIMUM H = l_e–d_e. SEE 3/WSW1 AND 4/WSW1 FOR l_e.

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

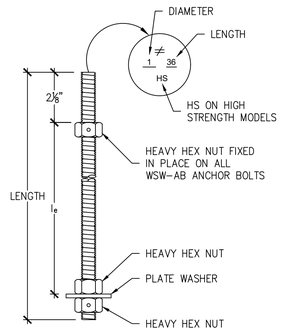


INTERIOR FOUNDATION



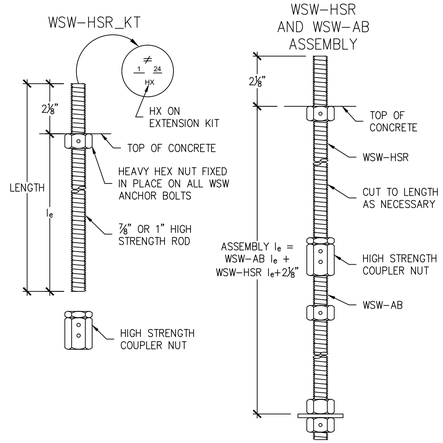
CURB OR STEMWALL FOUNDATION

STRONG–WALL? WSW ANCHORAGE – TYPICAL SECTIONS | 1



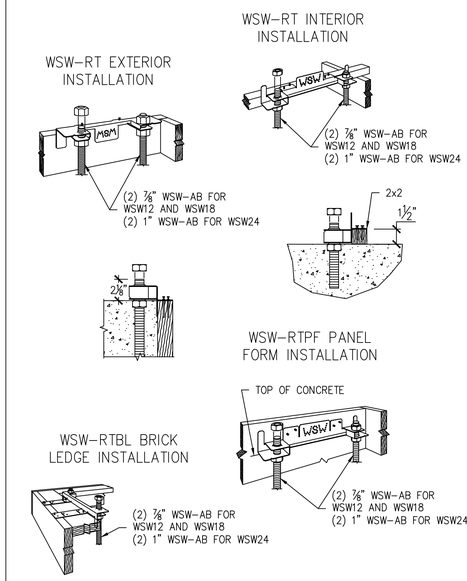
WSW PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSW12 AND WSW18	WSW–AB⅞x24	⅞"	24"	20"
	WSW–AB⅞x24HS	⅞"	24"	20"
	WSW–AB⅞x30	⅞"	30"	26"
	WSW–AB⅞x30HS	⅞"	30"	26"
	WSW–AB⅞x36HS	⅞"	36"	32"
WSW24	WSW–AB1x24	1"	24"	20"
	WSW–AB1x24HS	1"	24"	20"
	WSW–AB1x30	1"	30"	26"
	WSW–AB1x30HS	1"	30"	26"
	WSW–AB1x36HS	1"	36"	32"

WSW ANCHOR BOLTS | 3

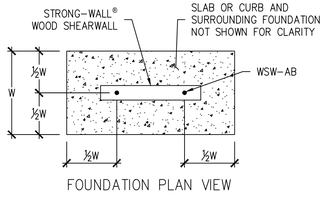


WSW PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSW12 AND WSW18	WSW–HSR⅞x24KT	⅞"	24"	22"
	WSW–HSR⅞x36KT	⅞"	36"	34"
WSW24	WSW–HSR1x24KT	1"	24"	22"
	WSW–HSR1x36KT	1"	36"	34"

WSW ANCHOR BOLT EXTENSION | 4



WSW ANCHOR BOLT TEMPLATES | 6



FOUNDATION PLAN VIEW

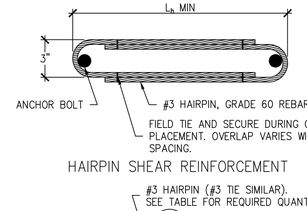
WSW ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE								
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW–AB⅞ ANCHOR BOLT			WSW–AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED	STANDARD	11,900	27	9	16,100	33	11
			13,100	29	10	17,100	35	12
		HIGH STRENGTH	24,900	43	15	33,000	51	17
			27,100	46	16	35,300	54	18
	UNCRACKED	STANDARD	12,500	24	8	15,700	28	10
			13,100	25	9	17,100	30	10
		HIGH STRENGTH	25,300	38	13	32,300	44	15
			27,100	40	14	35,300	47	16
WIND	CRACKED	STANDARD	5,100	14	6	6,200	16	6
			8,700	20	7	11,400	24	8
		HIGH STRENGTH	13,100	27	9	17,100	32	11
			15,900	30	10	21,100	36	12
			18,400	33	11	27,300	42	14
			23,100	38	13	31,800	46	16
			27,100	42	14	35,300	50	17
	UNCRACKED	STANDARD	5,000	12	6	6,400	14	6
			9,300	18	6	12,500	22	8
		HIGH STRENGTH	13,100	23	8	17,100	28	10
			15,200	25	9	21,900	32	11
			19,900	30	10	26,400	36	12
			24,000	34	12	31,500	40	14
			27,100	37	13	35,300	43	15

NOTES :
1. ANCHORAGE DESIGNS CONFORM TO ACI 318–11 APPENDIX D AND ACI 318–14 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSW–AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C–F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318–11 SECTION D.3.3.4.3 AND ACI 318–14 SECTION 17.2.3.4.3.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. REFER TO 1/WSW1 FOR d_e.

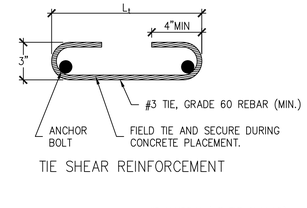
STRONG–WALL? WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI | 2

WSW ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE								
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW–AB⅞ ANCHOR BOLT			WSW–AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED	STANDARD	12,300	26	9	16,000	31	11
			13,100	28	10	17,100	33	11
		HIGH STRENGTH	25,200	41	14	32,700	48	16
			27,100	43	15	35,300	51	17
	UNCRACKED	STANDARD	12,000	22	8	16,300	27	9
			13,100	24	8	17,100	28	10
		HIGH STRENGTH	25,300	36	12	32,700	42	14
			27,100	38	13	35,300	44	15
WIND	CRACKED	STANDARD	5,000	13	6	5,600	14	6
			8,800	19	7	10,200	21	7
		HIGH STRENGTH	13,100	25	9	17,100	30	10
			15,700	28	10	20,100	33	11
			19,200	32	11	25,300	38	13
			23,200	36	12	32,300	44	15
			27,100	40	14	35,300	47	16
	UNCRACKED	STANDARD	5,500	12	6	6,200	13	6
			8,500	16	6	12,800	21	7
		HIGH STRENGTH	13,100	22	8	17,100	26	9
			16,600	25	9	21,800	30	10
			19,700	28	10	25,200	33	11
			24,000	32	11	31,700	38	13
			27,100	35	12	35,300	41	14

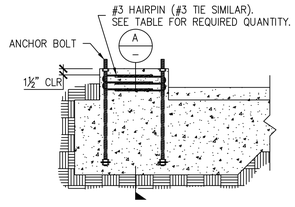
WSW ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE								
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW–AB⅞ ANCHOR BOLT			WSW–AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED	STANDARD	12,600	23	8	16,000	27	9
			13,100	24	8	17,100	29	10
		HIGH STRENGTH	24,800	36	12	32,100	42	14
			27,100	38	13	35,300	45	15
	UNCRACKED	STANDARD	12,700	20	7	15,700	23	8
			13,100	21	7	17,100	25	9
		HIGH STRENGTH	24,600	31	11	32,500	37	13
			27,100	34	12	35,300	39	13
WIND	CRACKED	STANDARD	5,400	12	6	6,800	14	6
			8,300	16	6	11,600	20	7
		HIGH STRENGTH	13,100	22	8	17,100	26	9
			15,300	24	8	21,400	30	10
			19,300	28	10	25,800	34	12
			23,600	32	11	31,000	38	13
			27,100	36	12	35,300	42	14
	UNCRACKED	STANDARD	6,800	12	6	6,800	12	6
			9,400	15	6	12,400	18	6
		HIGH STRENGTH	13,100	19	7	17,100	23	8
			16,800	22	8	21,600	26	9
			20,300	25	9	26,700	30	10
			24,100	28	10	32,200	34	12
			27,100	31	11	35,300	36	12



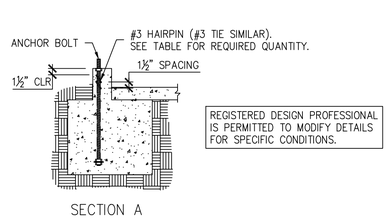
HAIRPIN SHEAR REINFORCEMENT



TIE SHEAR REINFORCEMENT



HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)



SECTION A

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

STRONG–WALL® WOOD SHEARWALL SHEAR ANCHORAGE						
MODEL	SEISMIC[3]			WIND[4]		
	L_t OR L_h (in.)	SHEAR REINFORCEMENT	MIN. CURB/ STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB/ STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD V (lbs.)[6]
						6" MIN CURB/STEMWALL
						UNCRACKED / CRACKED
WSW12	10¼"	(1) #3 TIE	8[5]	SEE NOTE 6	6	1,035 / 740
WSW18	15	(1) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6	HAIRPIN REINFORCEMENT ACHIEVES MAXIMUM ALLOWABLE SHEAR LOAD OF THE WSW
WSW24	19	(2) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6	

NOTES :
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318–11 AND ACI 318–14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. WHERE NOTED, MINIMUM CURB/STEMWALL WIDTH IS 6 INCHES WHEN STANDARD STRENGTH ANCHOR BOLT IS USED.
6. USE (1) #3 TIE FOR WSW12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
7. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSW SHEAR ANCHORAGE SOLUTIONS.

STRONG–WALL? WSW SHEAR ANCHORAGE SCHEDULE AND DETAILS | 5

NO.	DATE	REVISIONS
0	07-01-2016	FIRST RELEASE - 2015 IBC
1	06-18-2020	2018 IBC REVISIONS

SIMPSON Strong-Tie, Co. Inc.
• 5956 W. Las Positas Blvd.
Pleasanton, CA 94588
• Tel: (800) 999–5099
• Website: www.strongtie.com

SIMPSON Strong-Tie® THERE IS NO EQUAL

STRONG-WALL® WSW
ANCHORAGE DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie® THERE IS NO EQUAL

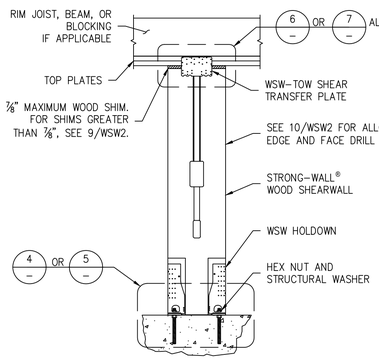
NAME
DATE 06-18-2020
SCALE N.T.S.
CHECKED
SHEET WSW1
OF SHEETS
JOB NO.

STRONG-WALL® WOOD SHEARWALL MODELS

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS QUANTITY	ANCHOR BOLTS DIA. (in.)	TOTAL WALL WEIGHT (lb.)
WSW12x7	12	78	2	⅞	100
WSW18x7	18	78	2	⅞	145
WSW12x7.5	12	85½	2	⅞	110
WSW18x7.5	18	85½	2	⅞	155
WSW12x8	12	93¼	2	⅞	115
WSW18x8	18	93¼	2	⅞	165
WSW24x8	24	93¼	2	1	225
WSW12x9	12	105¼	2	⅞	130
WSW18x9	18	105¼	2	⅞	185
WSW24x9	24	105¼	2	1	245
WSW12x10	12	117¼	2	⅞	140
WSW18x10	18	117¼	2	⅞	205
WSW24x10	24	117¼	2	1	270
WSW12x11	12	129¼	2	⅞	150
WSW18x11	18	129¼	2	⅞	220
WSW24x11	24	129¼	2	1	295
WSW12x12	12	141¼	2	⅞	165
WSW18x12	18	141¼	2	⅞	240
WSW24x12	24	141¼	2	1	320
WSW18x13	18	153¾	2	⅞	255
WSW24x13	24	153¾	2	1	345
WSW24x14	24	168	2	1	375
WSW24x16	24	192	2	1	425
WSW18x20	18	240	2	⅞	385
WSW24x20	24	240	2	1	520

NOTES :
1. FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74½".
2. ALL PANELS COME WITH TWO PRE-ATTACHED HOLDOWNS, TWO STANDARD HEX NUTS, TWO STRUCTURAL WASHERS, TWO WSW-TOW PLATES AND INSTALLATION INSTRUCTIONS.
3. ALL PANELS ARE 3½" THICK.

STRONG-WALL® WSW MODELS | 1

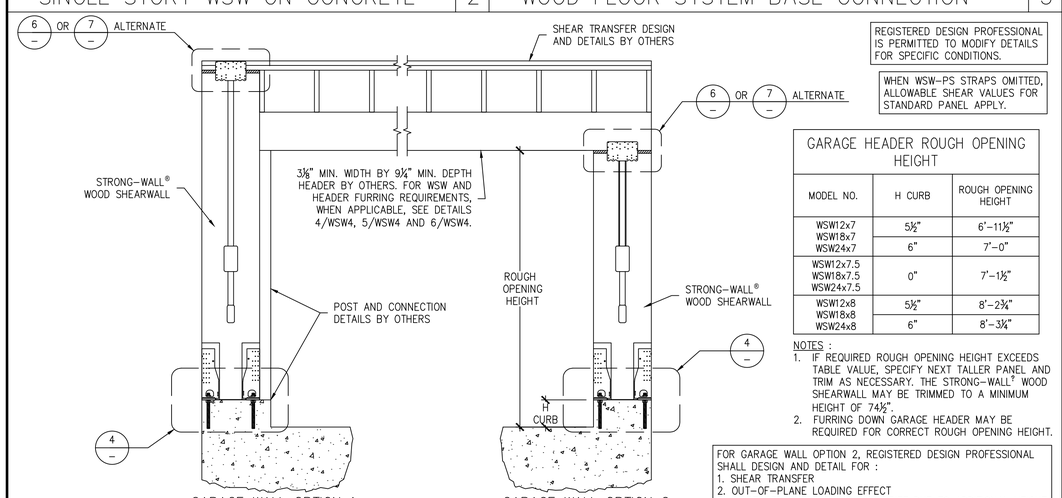


REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WSW DESIGNED TO PROVIDE ⅛" GAP BETWEEN LSL AT BASE OF WSW AND CONCRETE. ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

SINGLE STORY WSW ON CONCRETE | 2

ALTERNATE WSW GARAGE FRONT OPTIONS | 3



REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WHEN WSW-PS STRAPS OMITTED, ALLOWABLE SHEAR VALUES FOR STANDARD PANEL APPLY.

GARAGE HEADER ROUGH OPENING HEIGHT

MODEL NO.	H CURB	ROUGH OPENING HEIGHT
WSW12x7 WSW18x7 WSW24x7	5½"	6'-11½"
	6"	7'-0"
WSW12x7.5 WSW18x7.5 WSW24x7.5	0"	7'-1½"
WSW12x8 WSW18x8 WSW24x8	5½"	8'-2¾"
	6"	8'-3¼"

NOTES :
1. IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74½".
2. FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

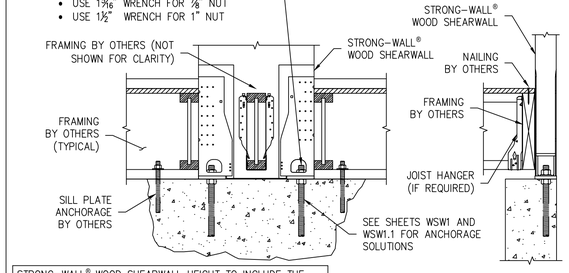
FOR GARAGE WALL OPTION 2, REGISTERED DESIGN PROFESSIONAL SHALL DESIGN AND DETAIL FOR :
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

ALTERNATE WSW GARAGE FRONT OPTIONS | 3

STANDARD INSTALLATION | 4

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

PLACE STRONG-WALL® WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH WASHER AND HEX NUTS (PROVIDED). SNUG TIGHT FIT REQUIRED;
DO NOT USE AN IMPACT WRENCH.
- USE 1⅜" WRENCH FOR ⅞" NUT
- USE 1½" WRENCH FOR 1" NUT



STRONG-WALL® WOOD SHEARWALL HEIGHT TO INCLUDE THE DEPTH OF THE FLOOR SYSTEM AND SHALL BE INSTALLED DIRECTLY ON THE FOUNDATION. SPECIFY PANEL HEIGHT FROM TOP OF FOUNDATION TO UNDERSIDE OF TOP PLATES OR BEAM.

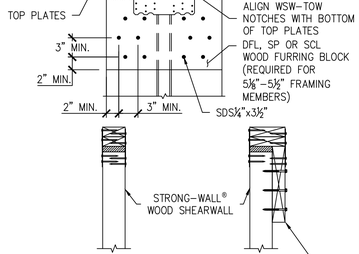
WOOD FLOOR SYSTEM BASE CONNECTION | 5

STANDARD TOP CONNECTION | 6

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

⅞" MAXIMUM WOOD SHIM. FOR SHIMS GREATER THAN ⅞", SEE 9/WSW2.

ATTACH WSW-TOW PLATES (PROVIDED) TO FRAMING AND WSW PANEL BOTH SIDES USING 10dx2½" NAILS MIN. FOR ALTERNATE CONNECTION SEE 7/WSW2.



FOR 5⅛"-5½" FRAMING, ATTACH DFL, SP OR SCL WOOD FURRING BLOCK BETWEEN WSW PANEL AND WSW-TOW WITH SDS ¼"x3½" SCREWS (MIN.) OR 16d COMMON NAILS (8 TOTAL FASTENERS FOR WSW12, 10 FOR WSW18 AND 14 FOR WSW24). MINIMUM BLOCK SIZE IS 1¾"x11⅞"x WSW PANEL WIDTH.

STANDARD TOP CONNECTION | 6

ALTERNATE TOP CONNECTION | 7

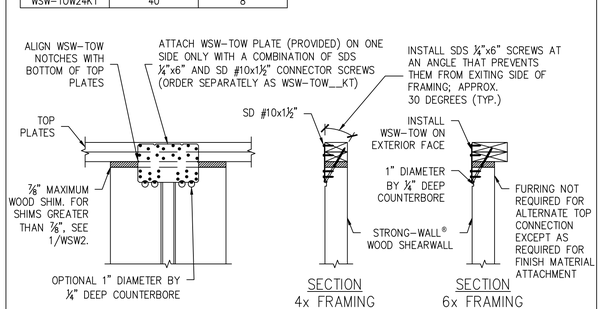
WSW-TOW ALTERNATE CONNECTION KIT		
MODEL NO.	FASTENER QUANTITY SD #10x1½"	SDS ¼"x6"
WSW-TOW12KT	20	2
WSW-TOW18KT	28	4
WSW-TOW24KT	40	8

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

ALIGN WSW-TOW NOTCHES WITH BOTTOM OF TOP PLATES

ATTACH WSW-TOW PLATE (PROVIDED) ON ONE SIDE ONLY WITH A COMBINATION OF SDS ¼"x6" AND SD #10x1½" CONNECTOR SCREWS (ORDER SEPARATELY AS WSW-TOW__KT)

INSTALL SDS ¼"x6" SCREWS AT AN ANGLE THAT PREVENTS THEM FROM EXITING SIDE OF FRAMING; APPROX. 30 DEGREES (TYP.)



ALTERNATE WSW GARAGE FRONT OPTIONS | 8

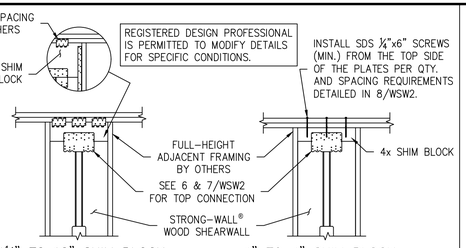
TOP OF WALL HEIGHT ADJUSTMENTS | 9

LTP4 SPACING BY OTHERS

4x SHIM BLOCK

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

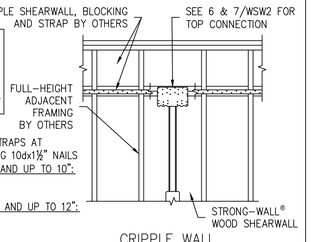
INSTALL SDS ¼"x6" SCREWS (MIN.) FROM THE TOP SIDE OF THE PLATES PER QTY. AND SPACING REQUIREMENTS DETAILED IN 8/WSW2.



REGISTERED DESIGN PROFESSIONAL SHALL DESIGN AND DETAIL FOR:
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

CRIPPLE SHEARWALL, BLOCKING AND STRAP BY OTHERS

SEE 6 & 7/WSW2 FOR TOP CONNECTION

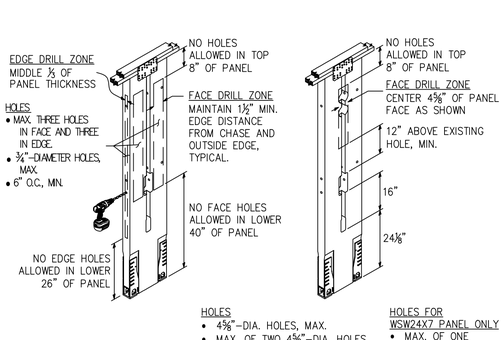


FOR 8" TO 12" BLOCK DEPTHS:
ATTACH SIMPSON STRONG-TIE® CS16 STRAPS AT EDGE OF WSW PANEL (EACH SIDE) USING 10dx1½" NAILS
SHIM BLOCK HEIGHTS GREATER THAN 8" AND UP TO 10":
- 8 NAILS INTO BLOCK
- 8 NAILS INTO WSW PANEL

SHIM BLOCK HEIGHTS GREATER THAN 10" AND UP TO 12":
- 10 NAILS INTO BLOCK
- 10 NAILS INTO WSW PANEL

TOP OF WALL HEIGHT ADJUSTMENTS | 9

TRIM ZONE AND ALLOWABLE HOLES | 10



HOLES
- 4⅝"-DIA. HOLES, MAX.
- MAX. OF TWO 4⅜"-DIA. HOLES OR ONE 4¾"x12" HOLE.
- NO MINIMUM ON-CENTER SPACING REQUIRED.

HOLES FOR WSW24X7 PANEL ONLY
- MAX. OF ONE 4⅜"x6" HOLE
- 8" FROM TOP OF PANEL, MIN.

ALLOWABLE SMALL HOLES FACE AND EDGE DRILL ZONES

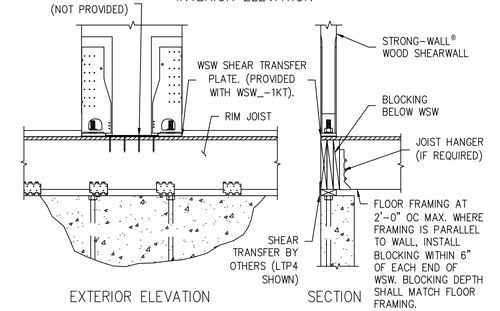
ALLOWABLE LARGE HOLES IN ADDITION TO ALLOWABLE SMALL HOLES

TRIM ZONE AND ALLOWABLE HOLES | 10

DRILL 2" DIAMETER x 1" DEEP HOLE OR NOTCH 2"x2"x1" DEEP MAX. IN SHEATHING & RIM JOIST. SET LOWER NUT FLUSH WITH TOP OF SHEATHING. WSW SHEAR TRANSFER PLATE SHALL SIT FLUSH & LEVEL ON NUTS.

PLACE STRONG-WALL® WOOD SHEARWALL OVER THREADED RODS AND SECURE WITH HEX NUTS (PROVIDED). USE 15⁄16" WRENCH FOR ⅞" NUT AND 1½" WRENCH FOR 1" NUT. NUTS SHALL BE SNUG TIGHT.

10D COMMONS TO RIM (NOT PROVIDED)



WALL WIDTH (in.)	MODEL NO.	CONTENTS
12	WSW-RF-12KT	EACH KIT CONTAINS (1) SHEAR TRANSFER PLATE (2) ⅞" x 18" OR 1" x 18" THREADED RODS (ASTM A36) (2) COUPLER NUTS (2) HEAVY HEX NUTS INSTALLATION INSTRUCTIONS
18	WSW-RF-18KT	
24	WSW-RF-24KT	

ORDER FIRST FLOOR CONNECTION KIT SEPARATELY.
MODEL WSW-RF-_KT. EXAMPLE WSW-RF-18KT

FIRST FLOOR AT WOOD FRAMING NOTES :
1. USE WOOD FIRST-FLOOR ALLOWABLE LOAD TABLES FROM THE STRONG-WALL CATALOG FOR THIS INSTALLATION.
2. USE ALTERNATE DETAIL 4/WSW2 TO ACHIEVE MAXIMUM ON-CONCRETE ALLOWABLE LOADS.
3. FOR TWO-STORY STACKED STRONG-WALL WOOD SHEARWALLS WITH WOOD FIRST FLOOR, USE ALTERNATE DETAIL 4/WSW2.
4. REGISTERED DESIGN PROFESSIONAL SHALL DESIGN FOR SHEAR TRANSFER FROM RIM JOIST TO SILL PLATE AND SILL PLATE TO FOUNDATION.

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

FIRST FLOOR AT WOOD FRAMING | 11

QTY. OF SDS¼"x6" SCREWS REQ'D.

WSW12	4
WSW18	8
WSW24	12

EDGE DISTANCE FOR SCREWS

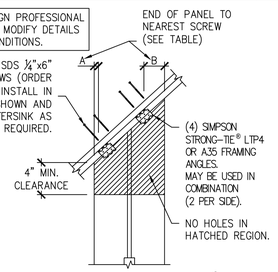
SLOPE	A (in.)	B (in.)
0:12-4:12	2	3
5:12-8:12	1½	4½
9:12-12:12	1½	5½

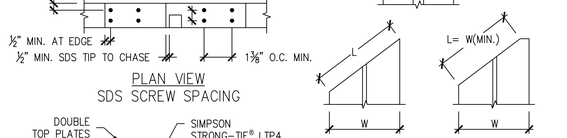
NOTES :
1. MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES.
2. INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.
3. EDGE DISTANCES ASSUME DOUBLE TOP PLATE.

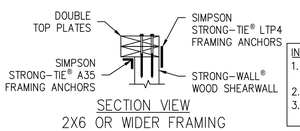
REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

END OF PANEL TO NEAREST SCREW (SEE TABLE)

INSTALL SDS ¼"x6" SCREWS (ORDER SEPARATELY). INSTALL IN 2 ROWS AS SHOWN AND COUNTERSINK AS REQUIRED.







INSTALLATION NOTES :
1. ACTUAL CUT LENGTH (L) MUST BE GREATER THAN OR EQUAL TO PANEL WIDTH (W).
2. THIS DETAIL APPLICABLE FOR SLOPES UP TO 12:12.
3. PANELS TALLER THAN 12' MUST BE DESIGNED FOR THE APPLICATION.

ALTERNATE WSW GARAGE FRONT OPTIONS | 8

NO.	DATE	REVISIONS
0	07-01-2016	FIRST RELEASE - 2015 IBC
1	07-17-2020	2018 IBC REVISIONS

SIMPSON Strong-Tie Co. Inc.
5956 W. Las Positas Blvd.
Pleasanton, CA 94588
Tel: (800) 999-5099
Website: www.strongtie.com

SIMPSON Strong-Tie® THERE IS NO EQUAL

STRONG-WALL® WSW
FRAMING DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie® THERE IS NO EQUAL

NAME	
DATE	07-17-2020
SCALE	N.T.S.
CHECKED	
SHEET	WSW2
OF	SHEETS
JOB NO.	

STRONG-WALL® WSW
SECOND-STORY WALLS – STACKED APPLICATION

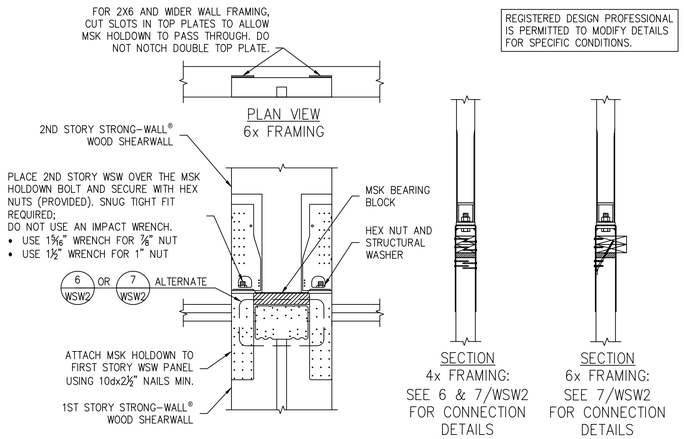
MODEL NO.	W (in.)	H (in.)	TOTAL WALL WEIGHT (lb.)
WSW18x9	18	105¼	185
WSW24x9	24	105¼	245
WSW18x10	18	117¼	205
WSW24x10	24	117¼	270
WSW18x11	18	129¼	220
WSW24x11	24	129¼	295
WSW18x12	18	141¼	240
WSW24x12	24	141¼	320

NOTES :
1. ALL PANELS COME WITH TWO PRE-ATTACHED HOLDOWNS, TWO STANDARD HEX NUTS, TWO STRUCTURAL WASHERS, TWO WSW-TOW PLATES AND INSTALLATION INSTRUCTIONS.
2. ORDER WSW-MSK SEPARATELY FOR TWO-STORY STACKED APPLICATIONS. KIT INCLUDES TWO MULTI-STORY KIT HOLDOWNS, TWO STANDARD HEX NUTS, TWO STRUCTURAL WASHERS, LSL BEARING BLOCK (LENGTH CORRESPONDS TO PANEL WIDTH), AND INSTALLATION INSTRUCTIONS.
3. ALL PANELS ARE 3½" THICK.

STRONG-WALL® WSW
FIRST-STORY WALLS – STACKED APPLICATION

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSW18x8	18	93¼	2	⅞	165
WSW24x8	24	93¼	2	1	225
WSW18x9	18	105¼	2	⅞	185
WSW24x9	24	105¼	2	1	245
WSW18x10	18	117¼	2	⅞	205
WSW24x10	24	117¼	2	1	270
WSW18x11	18	129¼	2	⅞	220
WSW24x11	24	129¼	2	1	295
WSW18x12	18	141¼	2	⅞	240
WSW24x12	24	141¼	2	1	320

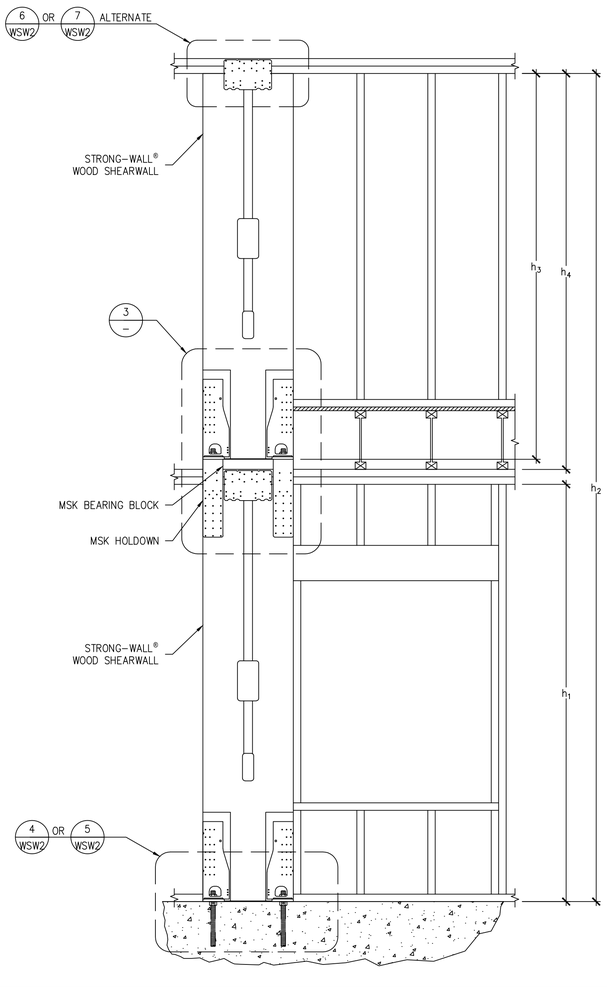
NOTES :
1. ALL PANELS COME WITH TWO PRE-ATTACHED HOLDOWNS, TWO STANDARD HEX NUTS, TWO STRUCTURAL WASHERS, TWO WSW-TOW PLATES AND INSTALLATION INSTRUCTIONS.
2. ALL PANELS ARE 3½" THICK.



REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

1. STRONG-WALL WOOD SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC."HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.
2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.
4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.
7. SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.
9. SEE ICC-ES ESR-2652 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

TWO-STORY STACKED WSW MODELS | 1



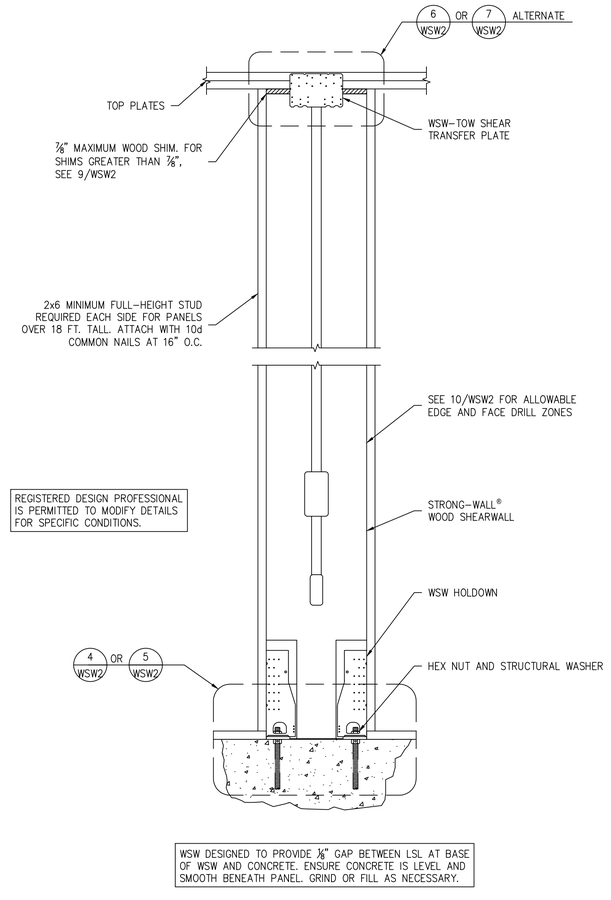
NOTES :
1. 1ST STORY WSW MUST BE THE SAME WIDTH AS THE 2ND STORY WSW.
2. JOIST AND SHEATHING MAY BE ATTACHED TO WSW WITH JOIST HANGER AND LEDGER. LOAD TRANSFER IS THE RESPONSIBILITY OF THE DESIGN PROFESSIONAL OF RECORD.
3. WSW MULTI-STORY KIT (MSK) INCLUDES MSK BEARING BLOCK AND MSK HOLDOWN.

LEGEND :
- h_1 = 1ST STORY WSW HEIGHT; TOP OF CONCRETE TO UNDERSIDE OF 1ST STORY TOP PLATES (IN.)
- h_2 = TOTAL ASSEMBLY HEIGHT; TOP OF CONCRETE TO UNDERSIDE OF 2ND STORY TOP PLATES (IN.)
- h_3 = h_4–2" = 2ND STORY WSW HEIGHT; TOP OF BEARING BLOCK TO BOTTOM OF 2ND STORY TOP PLATES (IN.)
- h_4 = TOP OF 1ST STORY TOP PLATES TO UNDERSIDE OF 2ND STORY TOP PLATES (IN.)

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

TWO-STORY STACKED ELEVATION | 2

TWO-STORY STACKED INSTALLATION | 3



WSW DESIGNED TO PROVIDE ⅛" GAP BETWEEN LSL AT BASE OF WSW AND CONCRETE. ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

BALLOON FRAMING PANELS OVER 18 FT. TALL | 4

NOTES | 5

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1	06-18-2020	2018 IBC REVISIONS

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SCALE	N.T.S.
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