



MASSING

C00
PASSIVE HOUSE

ARTICLE 8 - RESIDENTIAL 1.0 (R-1.0) DISTRICT

USES BY RIGHT

- DETACHED SINGLE FAMILY DWELLINGS
- AGRICULTURE
- OPEN SPACE, PARKS AND TRAILS
- HOME OCCUPATIONS
- ACCESSORY USES

DEVELOPMENT STANDARDS FOR PUD

- MINIMUM LOT AREA SHALL BE 30,000 SQFT
- MAXIMUM DWELLING UNITS PER ACRE: 1
- NO STRUCTURES ARE PERMITTED IN A FLOODWAY OR AREA OF SPECIAL FLOOD HAZARD
- ACCESSORY STRUCTURE SETBACKS ARE SET FORTH BY ARTICLE 22 OF THE ZONING CODE
- MINIMUM LOT FRONTAGE ON A PUBLIC RIGHT-OF-WAY SHALL BE 30'
- MINIMUM LOT WIDTH SHALL BE 150'
- MAXIMUM GROUND COVERAGE FOR ACCESSORY STRUCTURES SHALL BE 900 SF PER ACRE

ZONING: R-1.0 + PUD OVERLAY
RESIDENTIAL 1.0 PUD

FRONT SETBACK: 40'-0"
REAR SETBACK: 40'-0"
MINIMUM SIDE SETBACK: 40'-0"
1 DWELLING UNIT / ACRE

ACCESSORY STRUCTURES ALLOWED
ACCESSORY STRUCTURES SHALL NOT EXCEED 12' IN HEIGHT AND SHALL COMPLY WITH THE MINIMUM SETBACKS PROVIDED IN ARTICLE 22 OF THE ZONING CODE

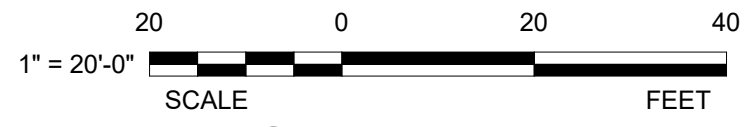
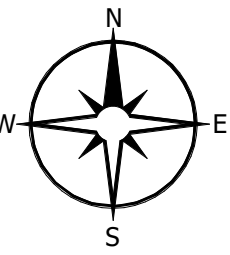
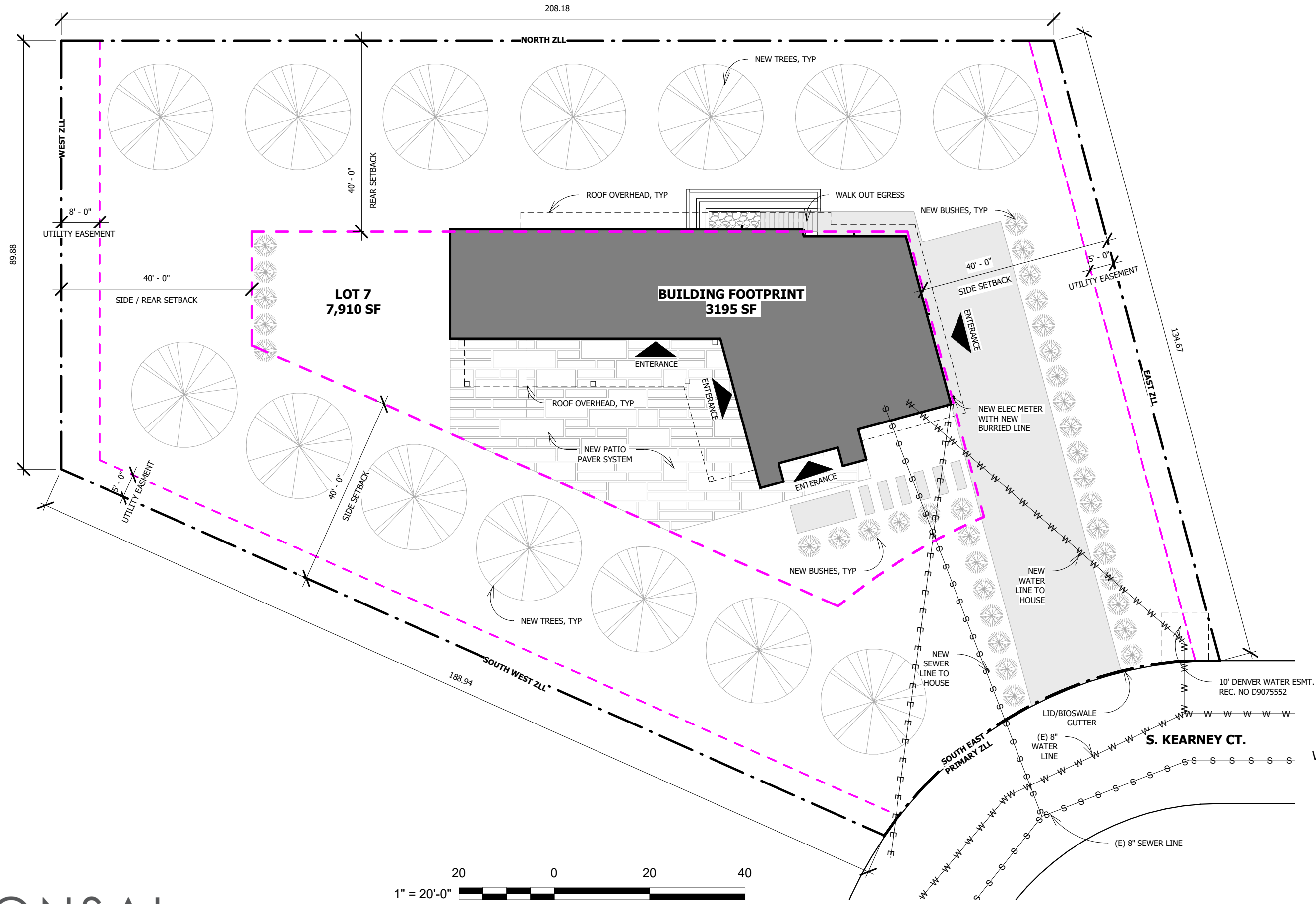
LOTS GREATER THAN 0.8/ ACRE MAX HEIGHT 28'-0"

LOTS UNDER 0.8/ ACRE MAX HEIGHT 26'-0"

MINIMUM OPEN SPACE 60% Lot

LOT 7:

29,792 SF
MIN LOT OPEN SPACE: 17,875 SF
CONSTRUCTIBLE AREA: 7,910 SF







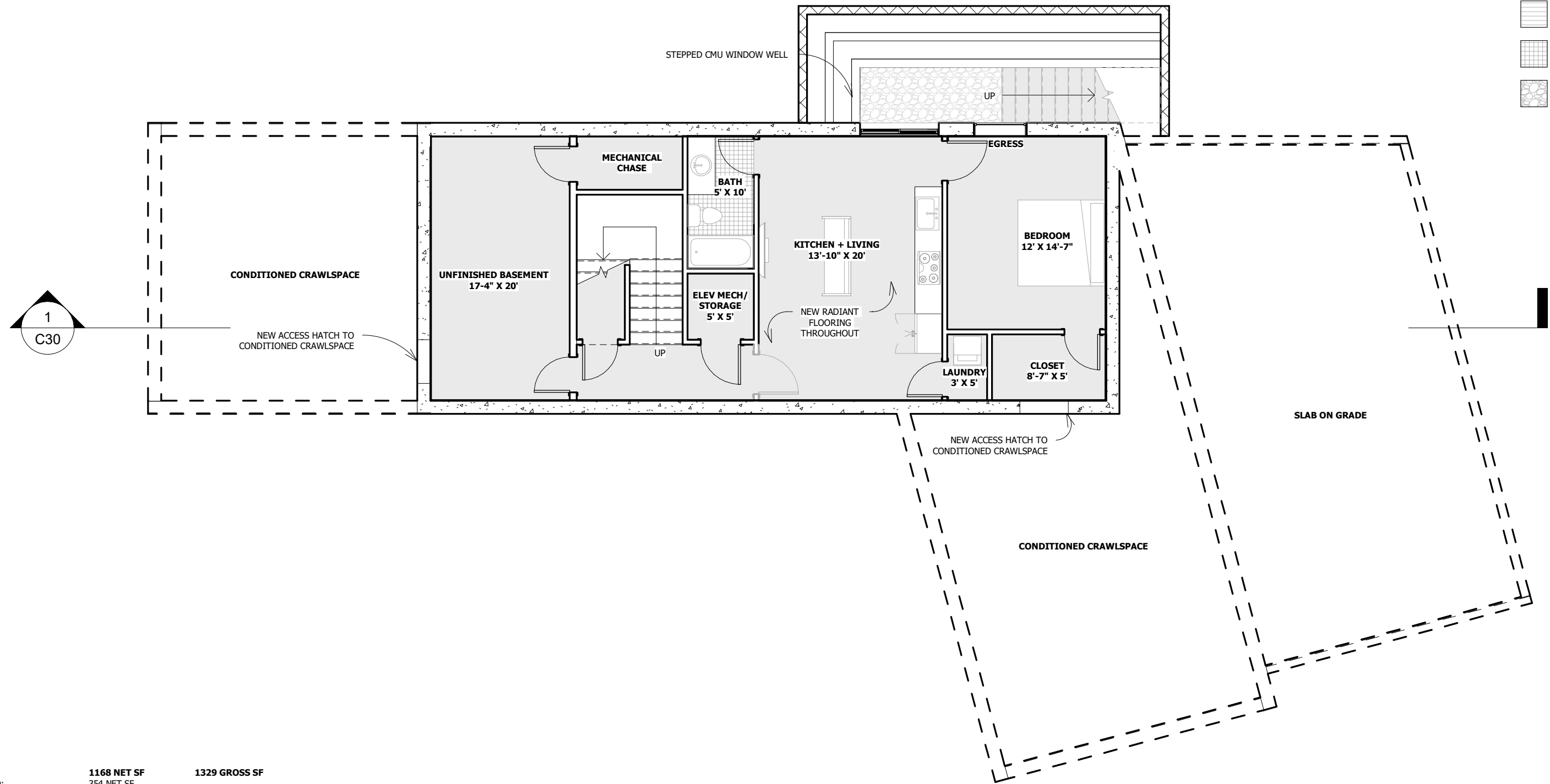
SITE PLAN

1" = 20'-0"

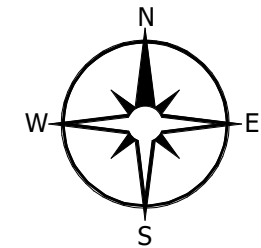
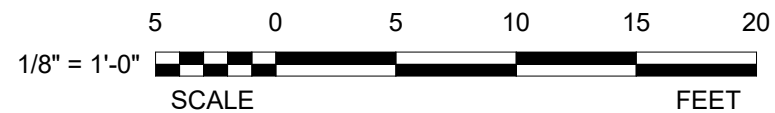
C01
PASSIVE HOUSE



-  CONCRETE
-  WOOD FLOOR
-  TILE FLOOR
-  GRAVEL







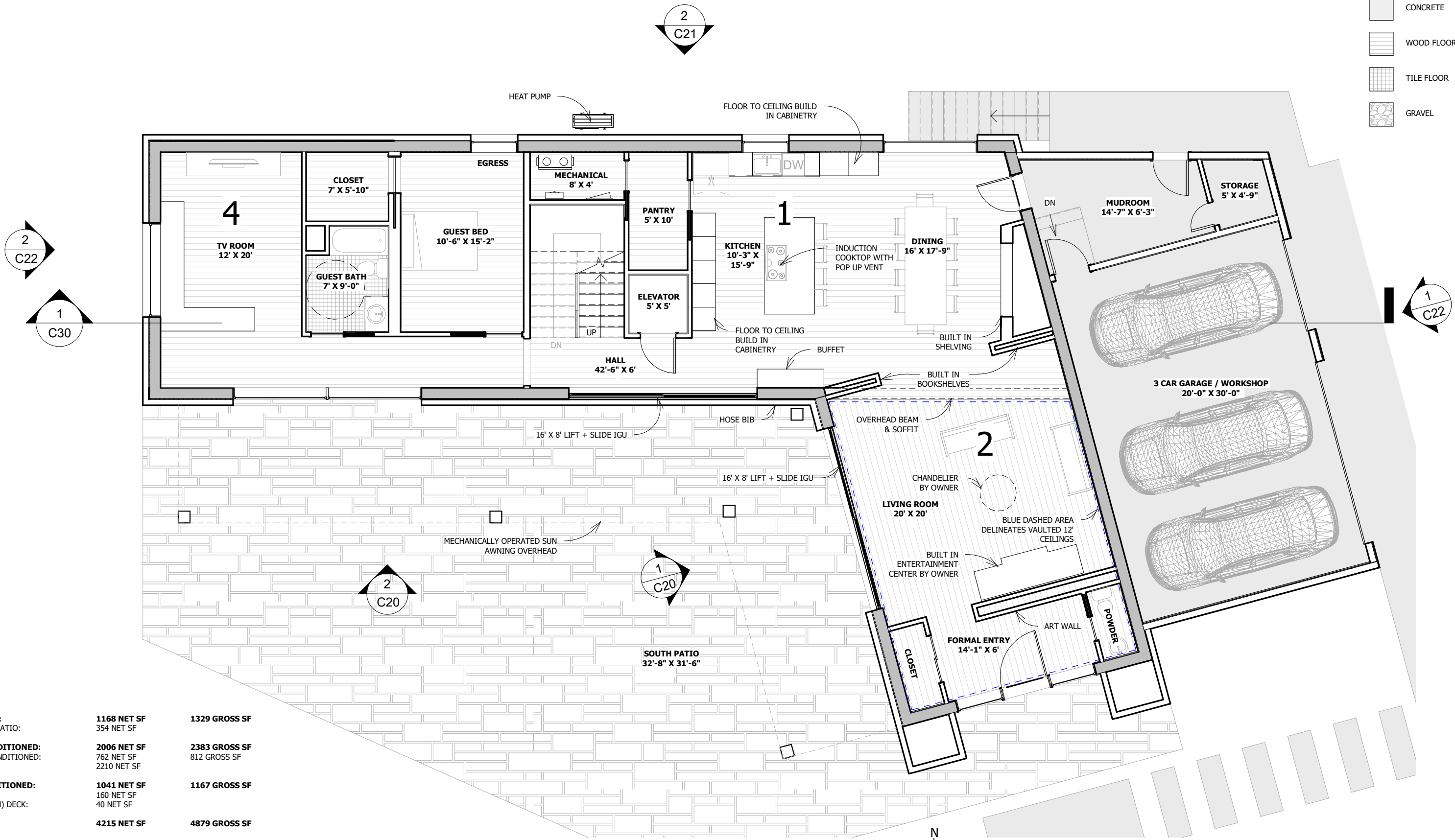
BASEMENT:	1168 NET SF	1329 GROSS SF
WALK OUT PATIO:	354 NET SF	
MAIN CONDITIONED:	2006 NET SF	2383 GROSS SF
MAIN UNCONDITIONED:	762 NET SF	812 GROSS SF
PATIO:	2210 NET SF	
2ND CONDITIONED:	1041 NET SF	1167 GROSS SF
WEST DECK:	160 NET SF	
EAST (MOON) DECK:	40 NET SF	
TOTAL:	4215 NET SF	4879 GROSS SF



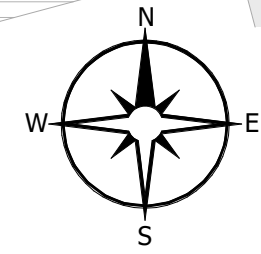
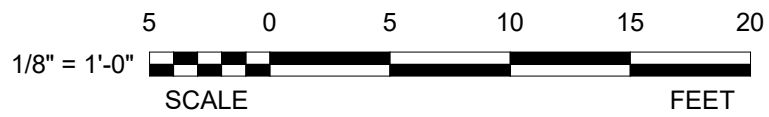
BASEMENT
1/8" = 1'-0"

C02
PASSIVE HOUSE

-  CONCRETE
-  WOOD FLOOR
-  TILE FLOOR
-  GRAVEL



BASEMENT:	1168 NET SF	1329 GROSS SF
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




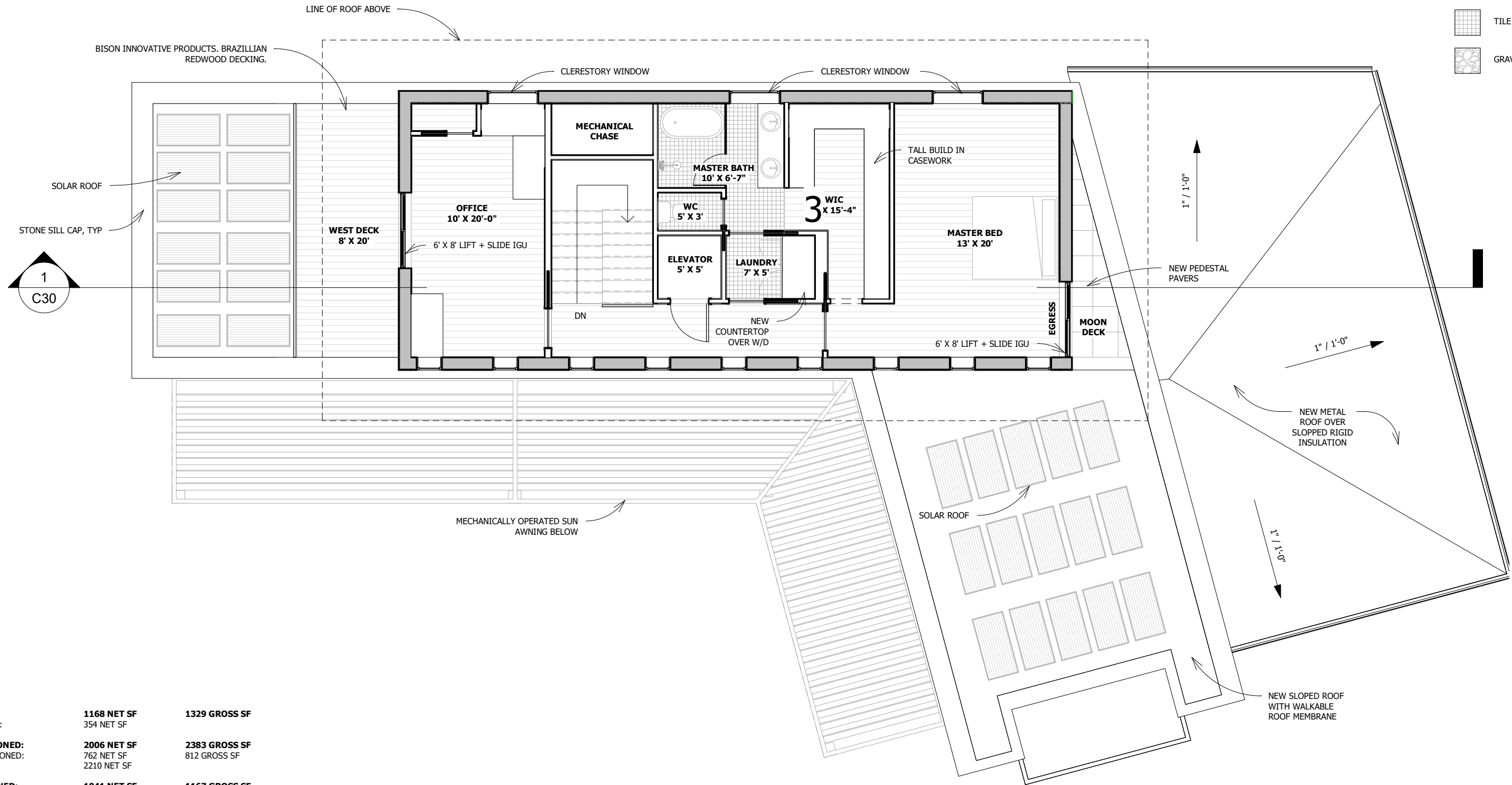
MAIN LEVEL

1/8" = 1'-0"

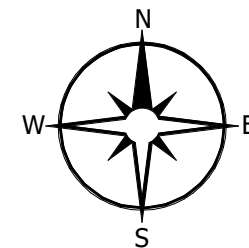
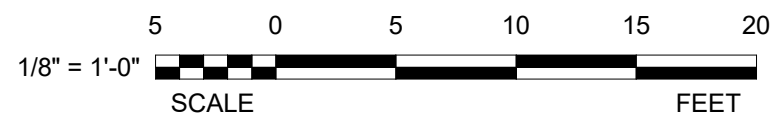
C03 PASSIVE HOUSE

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-  CONCRETE
-  WOOD FLOOR
-  TILE FLOOR
-  GRAVEL



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C04
PASSIVE HOUSE



1

KITCHEN EXAMPLE



2

LIVING ROOM EXAMPLE



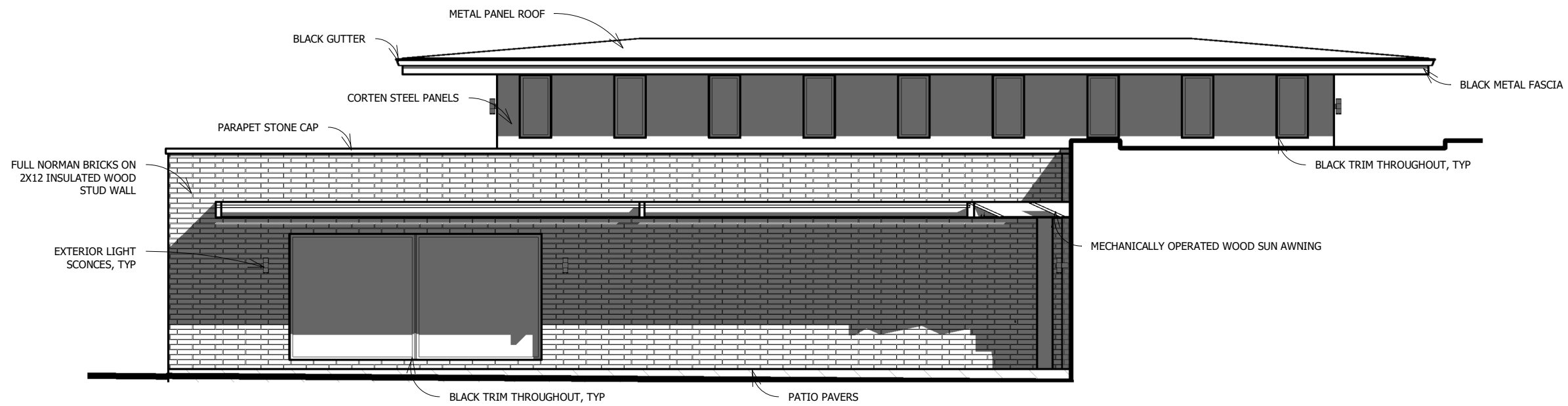
3

MASTER BATHROOM EXAMPLE

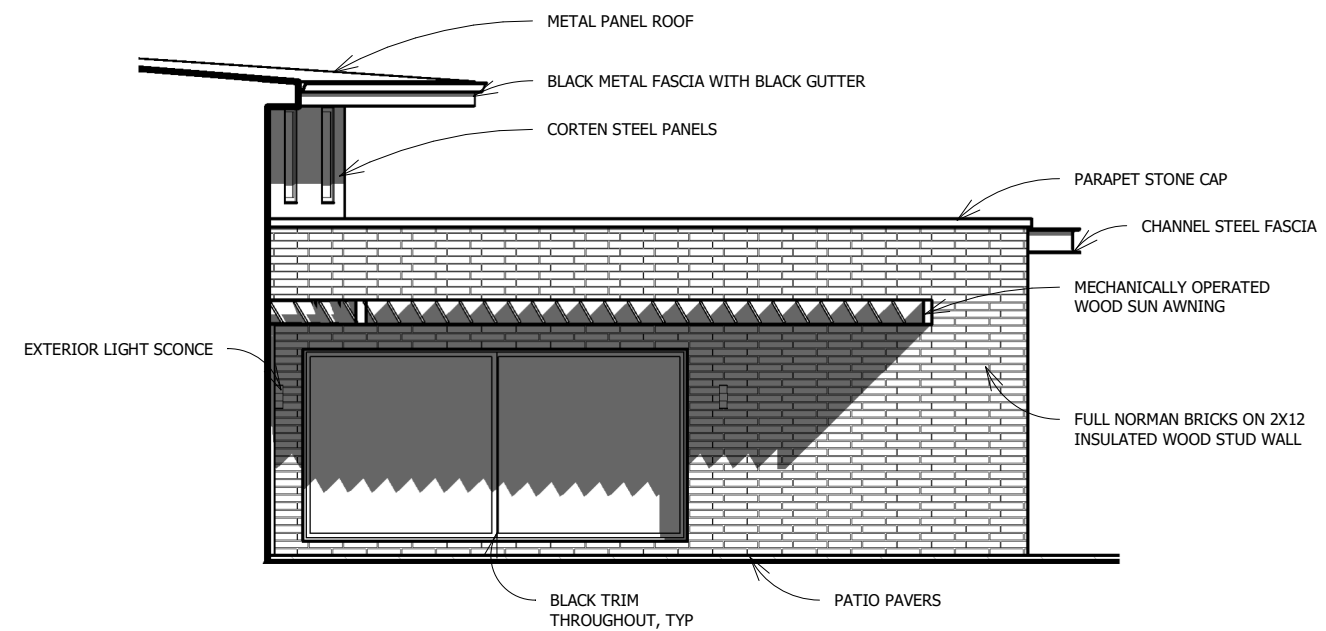


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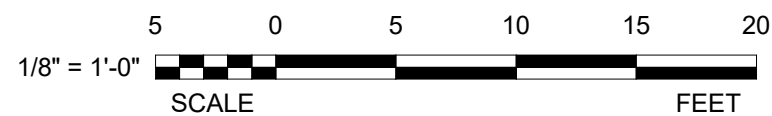
TV ROOM EXAMPLE



2 S. ELEVATION
1/8" = 1'-0"

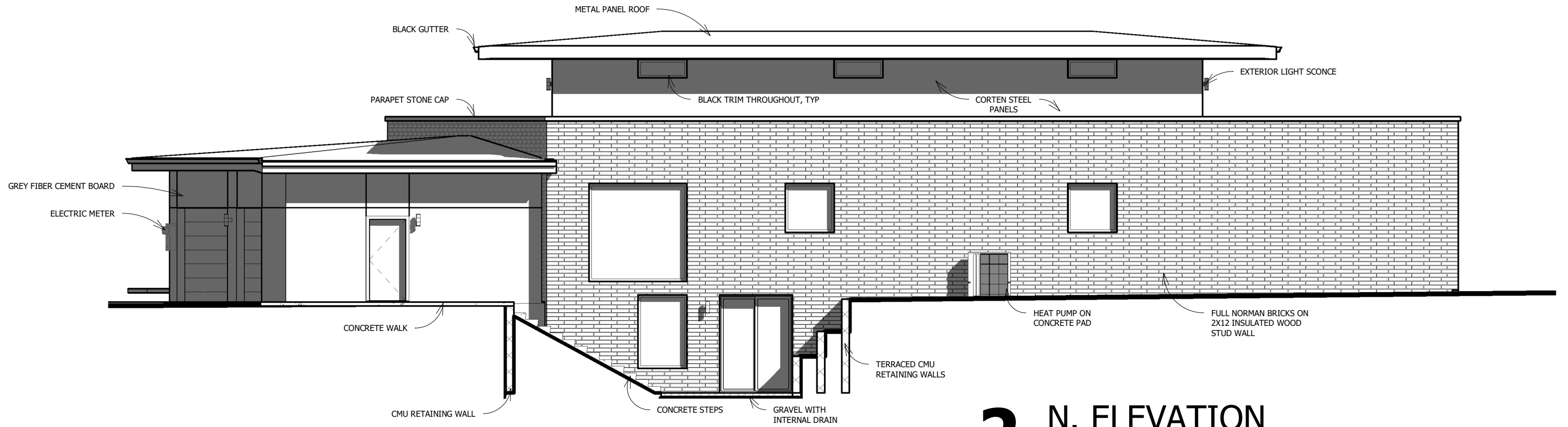


1 SW. ELEVATION
1/8" = 1'-0"

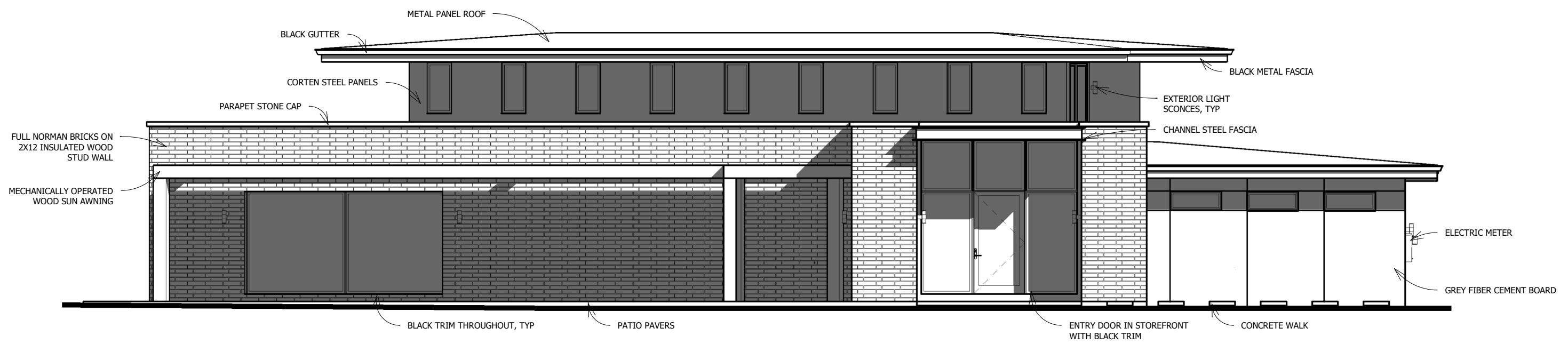


ELEVATIONS

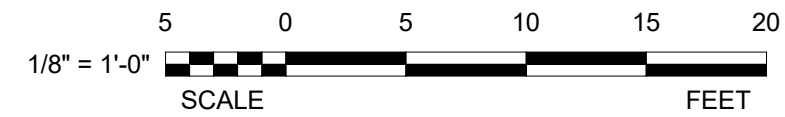
1/8" = 1'-0"

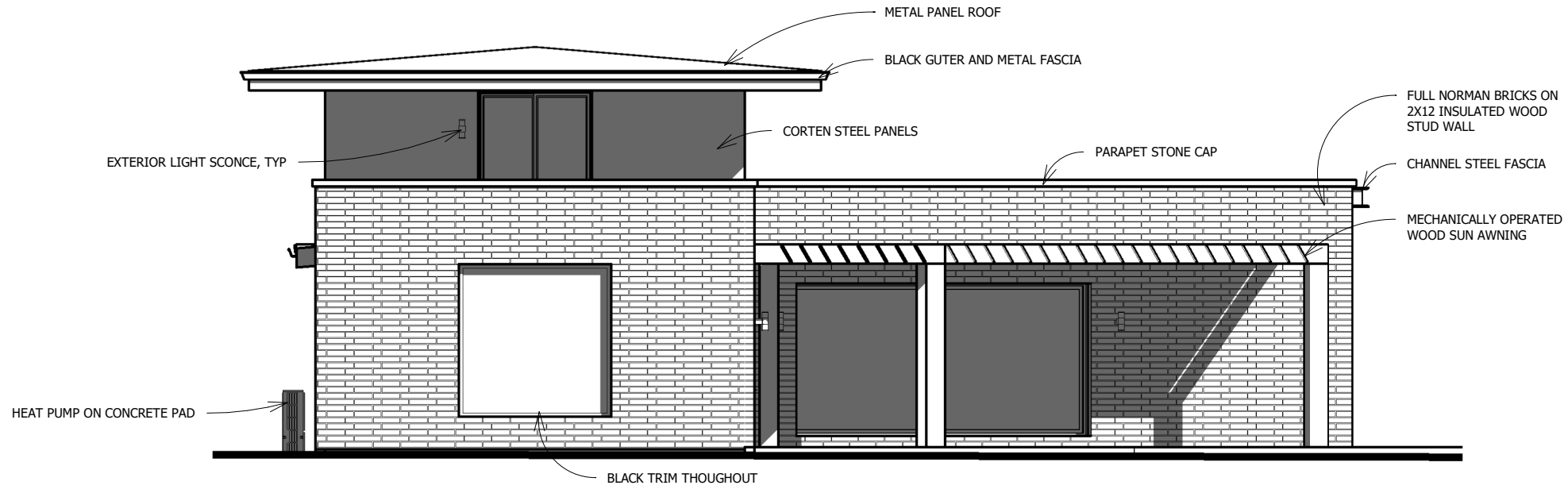


2 N. ELEVATION
1/8" = 1'-0"



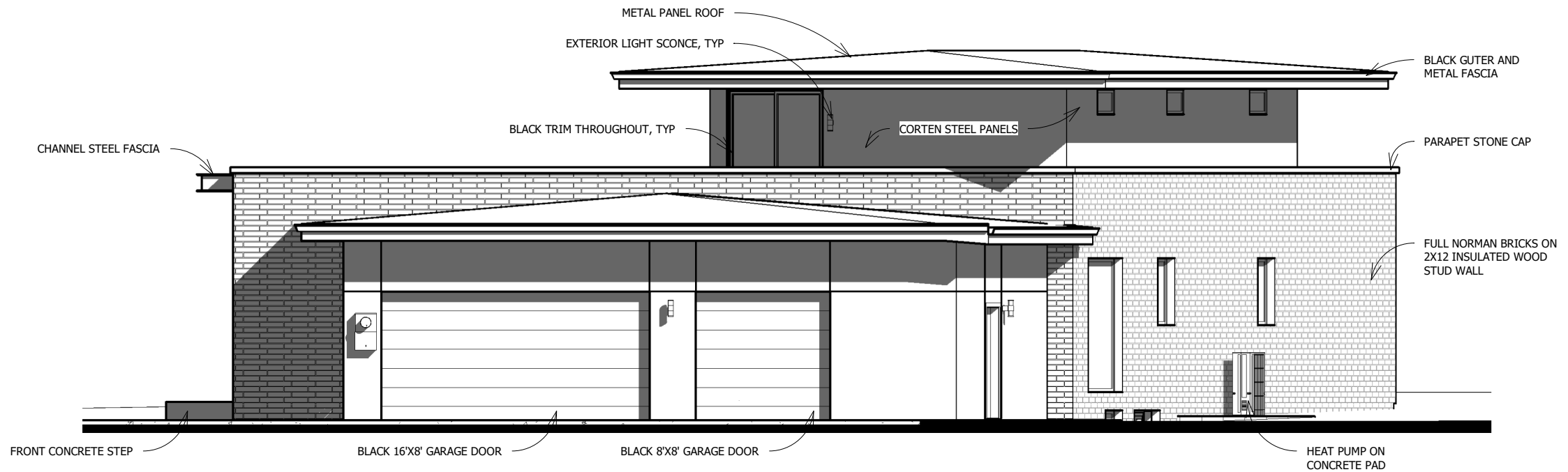
1 SE. ELEVATION (FRONT)
1/8" = 1'-0"





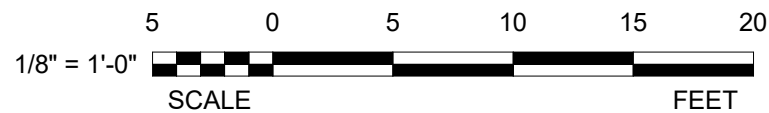
2 W. ELEVATION

1/8" = 1'-0"



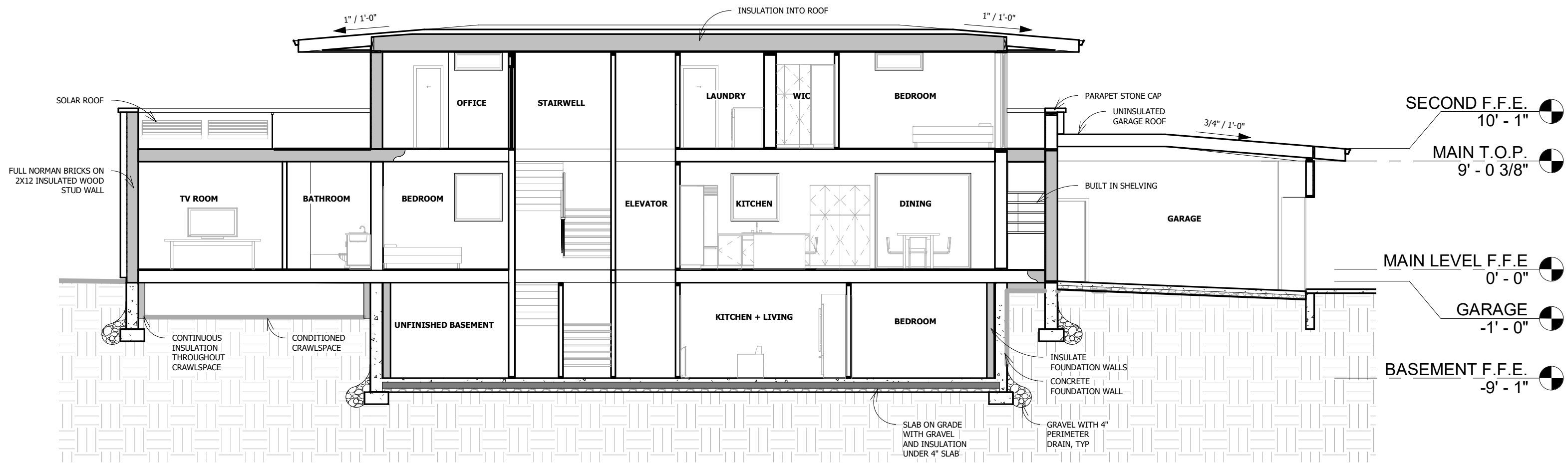
1 E. ELEVATION

1/8" = 1'-0"



ELEVATIONS

1/8" = 1'-0"



Accounting Code	Details	Original
0000 - Admin & General Requirements	Cleaning: Assuming cleaning throughout project, exterior areas, and final clean. General Materials: General Labor: Portable Toilet: Assume the use of one existing bathroom Waste Disposal: Dumpster for demolition and construction Reprographics: Floor Protection - Material + Labor: plywood over existing house and plastic wrap on walls.	\$44,000
Cleaning:	Assuming cleaning throughout project, exterior areas, and final clean.	\$5,000
General Materials:		\$10,000
General Labor:		\$10,000
Portable Toilet:	Assume the use of one existing bathroom	
Waste Disposal:	Dumpster for demolition and construction	\$5,000
Reprographics:		\$1,000
Floor Protection - Material + Labor:	plywood over existing house and plastic wrap on walls.	\$5,000
Separation of Living areas:	If clients choose to live through construction, builders will construct temp. walls in all areas to divide living space from construction space. access doors as needed.	\$8,000
0100 - Permit and Fees	Building Permit Fee: Builders Risk: Client may add BC as additionally insured to homeowners policy. Water Tap Fee: SUDP: 2-10 Warranty:	\$9,000
Building Permit Fee:		\$5,000
Plan Review Fee:		\$1,500
Builders Risk:	Client may add BC as additionally insured to homeowners policy.	\$1,000
Water Tap Fee:		
SUDP:		
2-10 Warranty:		\$1,500
1000 - Engineering + Surveying	Survey: Survey for permitting purposing. Structural Design: Structural design and site investigation. Restructuring of portion of garage area, roof, and second floor. Engineer to verify existing wall for design. Additional structural elements not accounted for, elements to be charged to contingency. IECC Documentation + HVAC (Manual Design):	\$11,500
Survey:	Survey for permitting purposing.	\$2,500
Structural Design:	Structural design and site investigation. Restructuring of portion of garage area, roof, and second floor. Engineer to verify existing wall for design. Additional structural elements not accounted for, elements to be charged to contingency.	\$8,000
IECC Documentation + HVAC (Manual Design):		\$1,000
1200 - Sitework & Utilities	Water Service: Sewer System: Electric Service: Erosion Control: Solar Entitlements: All existing solar work, entitlements, leasing, or ownership agreements to be handled directly through client and solar company. Bonsai accepts no liability of existing solar systems and will not perform work until necessary approvals are cleared by solar company. Shoring: Temp Fence:	\$0
1300 - Demolition	Demolition - Interior: Demolition of partial areas on main and second level. Demolition - Exterior: Demolition of (e) windows to on exterior. Partial demolition of (e) garage roof for restructure. Haul to dumpster. Hazardous Materials Testing: Lead and Asbestos testing. Remediation if required to be a contingency cost.	\$23,600
Demolition - Interior:	Demolition of partial areas on main and second level.	\$10,000
Demolition - Exterior:	Demolition of (e) windows to on exterior. Partial demolition of	\$10,000
Hazardous Materials Testing:	Lead and Asbestos testing. Remediation if required to be a	\$1,600
Boom Lift for Demolition:	Boom for window removal	\$2,000

1400 - Foundations & Footers	Excavation + Backfill: Potential need for restructuring or replacement of exterior retaining walls and dictated by structural investigation. All costs to be billed to contingency. Foundation - House: Replace foundation wall at walk out w/ new. TBD pending structural. Bill to contingency. Foundation - Garage: Perimeter Drain: Waterproofing:	\$0
1500 - Concrete Slab	Garage Slab - Materials + Labor: New concrete slab at elevator location. To be specified by structural. cut and join existing slab.	\$4,000
	Garage Slab - Materials + Labor:	\$4,000
1600 - Masonry		\$0
1700 - Framing	Framing - Labor: 750 SF new floor structure, exterior walls, interior walls. Partial new roof area. Framing - Materials: 750 SF new floor structure, exterior walls, interior walls. Steel Framing Material: Steel framing as specified by structural. Boom for Install: Boom lift for framing.	\$99,500
	Framing - Labor:	\$45,000
	Framing - Materials:	\$45,000
	Steel Framing Material:	\$7,500
	Boom for Install:	\$2,000
1800 - Roofing & Gutters	House Roofing - Material + Labor: New Roof area to match existing. House Gutter - Material + Labor: Gutters on all new roofs and solarium. House Soffit + Fascia - Materials + Labor: To match (e) wood, re-use if possible. Garage Roof - Material + Labor: Placeholder for new TPO on garage.	\$25,500
	House Roofing - Material + Labor:	\$7,500
	House Gutter - Material + Labor:	\$3,500
	House Soffit + Fascia - Materials + Labor:	\$7,500
	Garage Roof - Material + Labor:	\$7,000
1900 - Windows and Exterior Doors	Window + Door - Labor: Installation of 21 new windows. Window - Materials: Materials for 21 new windows. Low-E in bedroom. Double pane. Marvin integrity. Door - Materials: (1) fire rated exterior door, (1) regular exterior door. Boom Lift: Lift for window installation.	\$49,000
	Window + Door - Labor:	\$10,500
	Window - Materials:	\$35,000
	Door - Materials:	\$1,500
	Boom Lift:	\$2,000
2000 - Stairs	Stairs - Material + Labor: New framed stairs in second. Guard + Handrail - Material + Labor: New guardrail for framed stair in second.	\$3,000
	Stairs - Material + Labor:	\$2,000
	Guard + Handrail - Material + Labor:	\$1,000
3100 - Porches, Decks & Rails	Guardrail - Material + Labor: New guard as needed at elevator in garage.	\$500
	Guardrail - Material + Labor:	\$500
3500- Siding & Exterior Finishes	Siding + Exterior Finishes - Labor: exterior lime plaster for all exterior walls. Installation of Corten banding. ~475 SF w/ current window patterning. Siding + Exterior Finishes - Materials: exterior lime plaster for all exterior walls. Corten banding. 475 SF w/ current window patterning.	\$30,000
	Siding + Exterior Finishes - Labor:	\$15,000
	Siding + Exterior Finishes - Materials:	\$15,000

4000 - HVAC	HVAC - Material + Labor: New supplemental heating and cooling for new master bedroom + master bathroom. Assuming 1 minisplit head, 1 new heatpump. New routing of new bath fan. ERV	\$16,000
HVAC - Material + Labor:	New supplemental heating and cooling for new master bedroom	\$16,000

5000 - Plumbing, Gas & Fixtures	Plumbing - Labor: Plumbing labor for new master bathroom, washer, dryer. Plumbing Fixtures:(1) Toto elongated Toilet, (2) sinks. Water Heater: New Water heater.	\$12,500
Plumbing - Labor:	Plumbing labor for new master bathroom, washer, dryer.	\$7,000
Plumbing Fixtures:	(1) Toto elongated Toilet, (2) sinks.	\$3,000
Water Heater:	New Water heater.	\$2,500

6000 - Electrical & Lighting Fixtures	Electrical - Labor: New Electrical labor in new master, master bath, can lights in ceiling of new atrium space. potential new sub panel. New cans in (e) ceiling. 220 for new elevator, washer/dryer. Electric Heat: Heated floors in Master Bath. Electrical Fixtures: New vanity lights.	\$16,500
Electrical - Labor:	New Electrical labor in new master, master bath, can lights in	\$12,500
Electric Heat:	Heated floors in Master Bath.	\$2,500
Electrical Fixtures:	New vanity lights.	\$1,500

7000 - Insulation & Air Sealing	Insulation - Materials + Labor: Insulation of all new areas, walls, ceilings as necessary. R50 spray foam insulation. Vapor + Weather Barrier - Installation: Installation of wbr and vbr in new areas, in (e) atrium walls as needed post window install. Weather Barrier - Material: Liquid applied membrane. Vapor Barrier - Material: Blower Door Test:	\$19,500
Insulation - Materials + Labor:	Insulation of all new areas, walls, ceilings as necessary. R50 spray	\$7,000
Vapor + Weather Barrier - Installation:	Installation of wbr and vbr in new areas, in (e) atrium walls as	\$2,500
Weather Barrier - Material:	Liquid applied membrane.	\$2,000
Vapor Barrier - Material:		\$2,000
Blower Door Test:		\$1,000
Window Air Sealing:	Labor and Materials for taping and sealing around windows. All	\$5,000

8000 - Drywall, Tape & Mud	Drywall - Material + Labor: Drywall material + labor for ~750 SF.	\$7,500
Drywall - Material + Labor:	Drywall material + labor for ~750 SF.	\$7,500

8500 - Flooring & Tile	Flooring - Labor + Materials: New flooring ~750SF porcelain tile. Tile - Labor: Tile for new shower area and backsplash + toilet room Tile - Materials: New tile for shower area and backsplashes.	\$31,750
Flooring - Labor + Materials:	New flooring ~750SF porcelain tile.	\$18,750
Tile - Labor:	Tile for new shower area and backsplash + toilet room	\$8,000
Tile - Materials:	New tile for shower area and backsplashes.	\$5,000

9100 - Interior Trim, Int. Doors & Hardware	Interior Trim, Int. Doors + Hardware - Labor: install new doors and trim Interior Trim, Int. Doors + Hardware - Materials: New doors, trim. Paint grade.	\$6,000
Interior Trim, Int. Doors + Hardware - Labor:	install new doors and trim	\$3,000
Interior Trim, Int. Doors + Hardware - Materials:	New doors, trim. Paint grade.	\$3,000

9200 - Wall & Ceiling Finishes	Wall + Ceiling - Materials + Labor: Lime Plaster for all new interior spaces. Walls only. Living Craft. Interior Ceiling - Materials + Labor: T&G Wood ceilings. Master bed and new solarium.	\$35,000
Wall + Ceiling - Materials + Labor:	Lime Plaster for all new interior spaces. Walls only. Living Craft.	\$25,000
Interior Ceiling - Materials + Labor:	T&G Wood ceilings. Master bed and new solarium.	\$10,000
9300 - Cabinets, Counters & Hardware	Cabinets + Hardware - Materials + Labor: Cabinets for new walk in closet, laundry area, master vanity. Countertops - Materials + Labor: Countertops for new master bathroom, laundry. Quartz Lvl 2.	\$66,000
Cabinets + Hardware - Materials + Labor:	Cabinets for new walk in closet, laundry area, master vanity.	\$60,000
Countertops - Materials + Labor:	Countertops for new master bathroom, laundry. Quartz Lvl 2.	\$6,000
9400 - Shower Doors & Bath Accessories	Shower Door & Bath Accessories - Labor: installation of new shower glass Bath Accessories - Materials:	\$5,000
Shower Door & Bath Accessories - Labor:	installation of new shower glass	\$3,500
Bath Accessories - Materials:		\$1,500
9600 - Appliances	Appliance - Labor + Material: New Washer, Dryer Elevator - Material + Labor: Stiltz Trio Alta Elevator:	\$55,000
Appliance - Labor + Material:	New Washer, Dryer	\$25,000
Elevator - Material + Labor:	Stiltz Trio Alta Elevator:	\$30,000
9700 - Landscaping & Paving	Landscaping: Repair damages to rear from boom lifts.	\$50,000
Landscaping:	Repair damages to rear from boom lifts.	\$50,000
9800 - Site Supervision	Project supervision, Job Site Superintendent (Cleanliness, Security, Traffic Flow, Signage), Fuel, Communication	\$105,000
9999 - General Contingency	@ 10% of cost	\$65,785