

Points:	7	*		#		Total	Level .
Min Required:	164	52	42	65	18	60	
Proposed:	0	0	0	0	0	0	
Yes:	195	103	84	102	39	523	Gold
Verified:	203	103	94	113	39	552	Gold
Eligible Pillars:	Ø	❷	②	②	②		

1. Preconstruction Design Strategies

	1.1	OVERALL REQUIREMENTS		7	#		#	
Yes	1.1.8	Perform radon test in lowest possible habitable space. Mitigate if necessary Remodel only Not required on homes with a radon system Notes: Performed by Rater who is AARST-NRPP certified. See attached in document		7	*	(1)	Marie	٥
Yes	1.1.9	Use Integrated Pest Management (IPM) methods to minimize pest entry.	Default Value	7	*	(1)	***	٥
Yes	1.1.10	Use certified wood if importing outside of US and Canada - FSC or SFI	Default Value	7	\$	(1)	W	٥
Yes	1.1.19	Seal all ducts and air handlers to prevent contamination during construction. Notes: All ductwork will be new.	Default Value	7	#	(1)	0 0 0 0 0 0 0 0 0 0 0	٥
	1.2	INTEGRATED & TRAINED PROJECT TEAM		7	#		#	•
Yes	1.2.2	Create multi-disciplinary project team and host pre-construction meeting Notes: Team leader /GC has met with each sub to discuss green scope.	S.	1	1	1	1	1
Yes	1.2.4	Hire a credentialed HQUITO HVAC contractor Notes: Ray W. Welter Heating and Air		2	2	0	0	0
Yes	1.2.6	Certified GreenHome Professional Serving on project team	Default Value	e 1	1	1	1	1
Yes	1.2.7	Complete pre construction plan review before construction - New, major rehab or addition only.	Default Value	1	1	1	1	1
	1.3	ENERGY USE REDUCTION		7	#		#	
Yes		Energy Modeling Notes: See HESpro pdf and HES score pdf. The EUI was claculated manual estimations from Hjavascript:Worksheet.saveLongText(false)ES.	lly using the	3 38	0	0	0	0
Yes	1.3.2	Air Changes Per Hour (ACH) Notes: Final blower door test results are 1.81 ACH @ 50 pascal	2 ach	า 24	. 2	0	0	0



	1.4	DESIGN		F	*		禁	6
Yes	1.4.2	Home size after construction or renovation. Square Feet: 1235 Notes: See Scope Plans	1000 - 1499 square feet	5	0	5	5	0
Yes	1.4.11	Home shares a common driveway with at least one other hor Notes: driveway shared by 4 homes. See photo	me	0	0	1	0	0
Yes	1.4.12	No garage or detached garage Notes: New detached garage, See Scope plans page 27	Detached garage	0	3	0	0	0
Yes	1.4.15	Asbestos Inspection performed		0	1	0	0	0
Yes	1.4.16	Lead paint test performed		0	1	0	0	0
	1.5	HOME LOCATION AND SITE SELECTION		7	*		#	•
Yes	1.5.1	HOME LOCATION AND SITE SELECTION Ability to walk to community services. (walkscore.com) Select one:	walkscore between 50-69	0	0	3	0	0
Yes	1.5.1	Ability to walk to community services. (walkscore.com) Select	walkscore between 50-69	0	0	3	0	0
	1.5.1	Ability to walk to community services. (walkscore.com) Select one: Access to public transportation.						
Yes	1.5.1 1.5.2 1.5.3	Ability to walk to community services. (walkscore.com) Select one: Access to public transportation.	1/4 mile	0	0	4	0	0
Yes Yes	1.5.1 1.5.2 1.5.3 1.5.4	Ability to walk to community services. (walkscore.com) Select one: Access to public transportation. Site is bike friendly Publicly accessible outdoor space (3/4 acre or greater)	1/4 mile ry bikeable. Bike Score 70-89	0	0	4	0	0
Yes Yes Yes	1.5.1 1.5.2 1.5.3 1.5.4 1.5.5	Ability to walk to community services. (walkscore.com) Select one: Access to public transportation. Site is bike friendly Publicly accessible outdoor space (3/4 acre or greater)	1/4 mile ry bikeable. Bike Score 70-89 Within 1/4 mile from site	0 0	0 0	4 3 2	0 0	0 0

2. Site & Landscape

	2.1	PREREQUISITES		7	*		#	6
Yes	2.1.1	No invasive species are planted	Default Value	7	\$	(1)	Ħ	٥
Yes	2.1.2	No cypress mulch	Default Value	7	#	(1)	#	٥
Yes	2.1.3	No new railroad ties or other landscape materials that contain creosote or chromated copper arsenate	Default Value	7	*	(1)	***	٥
Yes	2.1.4	Following construction completion, no part of the disturbed site is left uncovered or destabilized	Default Value	7	*	(1)		٥
	2.2	SOIL AND PERMEABILITY		5	7 4		#	6
Yes	2.2.3	Total site has XX% permeable surface. Select one: 65% of undeveloped Notes: see photo of side yard	site is permeabl	e (0 0	2	0	0
Yes	2.2.4	Permeability of the total site is increased by XX%	<209	% (0 0	2	0	0
Yes	2.2.5	Keep excavated soils on site. Notes: Soil taken from front of house was moved to back of house and us hugels. Brush and limbs removed from chainlink fence was also used for		(0 0	2	0	0



	2.3	PLANTING/TREES		7	*		#	
Yes	2.3.2	50% or more of the lot contains plants or trees other than turf		0	0	2	0	0
Yes	2.3.9	Compost Bin Installed or Service Registration Notes: City of Minneapolis offers compost bin Defa	ult Value	0	0	1	1	0
Yes	2.3.14	All plantings and plant materials are kept at least " from house 1 Notes: See photos	8 inches	0	0	0	1	0
Yes	2.3.16	Apply two inches of compost in the top 6 to 12 inches of soil in flower & Defau vegetable garden beds	ult Value	0	0	1	0	0
Yes	2.3.18	Use mulch ground from local tree trimming, on-site tree removal, or clean Defar wood waste and gypsum Notes: See photos	ult Value	0	0	0	1	0
	2.5	DECKS, PATIOS AND PORCHES		7	*		華	•
Yes	2.5.3	Wood use is kept at least 12 inches from soil		0	0	0	2	0
Yes	2.5.5	Decking is made from recycled content and has low-toxicity		0	0	0	1	0
	2.6	EROSION CONTROL		7	*		#	•
Yes	2.6.2	Apply mulch to at least 3 inches of all planting beds (no cypress mulch allowed)		0	0	0	0	1
Yes		Use site material as mulch for erosion control on steep slopes Notes: See photo of stump removal		0	0	1	0	0
Yes		Long-term erosion is reduced through terracing, retaining walls, landscaping, or ot restabilitization techniques Notes: see photo	her	0	0	2	0	0
	2.7	RAINWATER HARVEST		7	*		華	
Yes		Roof water drainage system that captures xx% of roof area for irrigation use (storal capacity for 1/2"" rain event & overflow to absorption area) Select one: Notes: This photo shows rain water directed from the garage into a swale/rain gard. The effort is duplicated to the west/opposite side where a buried mulch pit absorb from the south facing garage roof.	den.	0	0	12	0	14
Yes		Plant a rain garden (captures XX% of roof runoff for 1/2 " rain event) Select one: Notes: see photo	50%	0	0	3	0	0
	2.8	GRADING/DRAINAGE		7	*		#	•
Yes		Patio slabs, walks and driveway shall be sloped a minimum of 1/8" per foot Defar away from house Notes: See photo of sloped walkway	ult Value	0	0	0	1	0
Yes		Land is re-graded (or terraced) to slope away from house (min. 5% slope 10 feet av from foundation walls) (minimum 6" within first 10 feet) Notes: See photo of terraces for flower garden and site mulch	vay	0	0	0	1	0



3. Improve Existing Floor, Wall, and Roof

	3.1	PREREQUISITES	7	#		#	
Yes	3.1.2	Perform thorough risk assessment of existing conditions and systems Default Value prior to doing basement finishing work Remodel Only	7	*	(1)	01-02-04 01-02-04 01-02-04 01-02-04	٥
Yes	3.1.2	Wall cavities exposed must be air-sealed and insulated Notes: See photo of professionally sealed walls	7	\$	(1)	0.00 0.00 0.00 0.00	٥
	3.2	IMPROVE EXISTING FOUNDATIONS, CRAWLSPACES, & SLABS	7	*		雲	6
Yes	3.2.3	Document the condition of the air sealing, vapor retarder and insulation at rim joist. Improve any areas that do not have proper air seal, vapor retarder and/or min. R19 insulation as necessary. (Rim joist that do not need improvement also qualify). Notes: see photos. Also, there was a site visit by Greenrater	4	. 2	0	1	0
Yes	3.2.5	No carpet installed in basement	C) 3	0	1	0
Yes	3.2.8	Improve existing garage slab and slope garage floor toward main vehicle Default Value doorway, or integrated floor drains, minimum 1/8 per foot. If existing slab qualifies, credit is received. Notes: See photos of slab pour, and photo of finished garage. Concrete slab for 3 car garage replaced with slab for single car garage plus gravel drive under carport area. Hugels on east side of carport to also retain water	ue C	0 0	0	1	0
	3.5	INSTALL OR IMPROVE BULK WATER DRAIN SYSTEM.	7	*		#	6
Yes	3.5.2	Install interior sub-slab perimeter dain tile system with sealed sump basket & integrated dimpled drainage sheeting @ bottom of wall & floor slab edge. Air seal all edges & seams		0	0	4	0
Yes	3.5.4	Integrate soil gas (a.k.a. radon) vent pipe with interior sub-slab drain tile	0) 1	0	1	0



	3.6	IMPROVE EXIST'G AG WALLS, CEILINGS & FRAMED FLRS	7	*		禁	
Yes	3.6.5	Air seal and insulate all wall cavities where wall framing is exposed. (2x4 walls = min. R13) (2x6 walls = min R21) Notes: See image of air sealing wall cavity joints	3	0	0	0	0
Yes	3.6.6	Expose, air seal (including top and bottom plate), and insulate walls adjacent to shower/tub Notes: Tub area was insulated prior to tub installation, using rigid foam and sealed with spray foam	1	1	0	1	0
Yes	3.6.7	Penetrations through insulated ceilings are sealed Notes: Ceiling under attics were sprayed in their entirety.	1	0	0	0	0
Yes	3.6.10	Air seal penetrations and joints in existing fireplace framing Notes: chimney was eliminated Default Value	1	1	0	0	0
Yes	3.6.11	Provide flashing at the bottom of all wall cladding. Includes weeps & weep screed for masonry veneer, stucco, thin stone veneer, etc. Notes: See photos of back porch area	0	0	0	2	0
Yes	3.6.12	Provide rodent and corrosion proof screens (e.g., copper or stainless steel mesh) for all openings that cannot be fully sealed and caulked (e.g., vents)	0	0	0	2	0
Yes	3.6.13	Replace damaged exterior cladding (minimum 3 sides) with cladding with minimum 40 year warranty. Notes: Hardie cement siding used for garage, and all siding replacement	1	0	0	1	0
Yes	3.6.14	Existing cavity insulation between studs in exterior walls is GREATER than Pefault Value R19 or it is brought up to this level. Notes: Cavity insulation brought up to R32	2	0	0	0	0
Yes	3.6.17	Gypsum wallboard (GWB) is min. 1/2 inch from concrete slabs. (Applies to existing GWB on existing walls, or new GWB on existing walls.) Notes: see photos of basement mechanical room walls	0	0	0	1	0
	3.7	WALLS W/ADVANCED SIDING MATERIALS/TECHNIQUES	7	*		#	•
Yes		Install continuous drainage plane fully sealed at all penetrations that directs Default Value water away from home Notes: Garage and back porch wrapped with Tyvek	0	0	0	1	0
Yes		Siding and trim are back-primed on all sides Notes: Hardie siding comes with back side already sealed. All trim exposed to the weather was PVC (no need to prime). Trim inside the carport ceiling area was primed on all sides prior to installation.	0	0	0	1	0
Yes		Fiber-cement or wood composite siding installed (min. 50% of siding used) Notes: All siding used is Hardie cement lap siding	0	0	0	1	0
Yes		Exposed wood is kept at least 12 inches from soil Notes: Except for front stair stringers, all wood at bottom of the house has been wrapped with vinyl composite. All exterior window trim is vinyl PVC.	0	0	0	1	0
Yes		Use reclaimed brick (for exterior wall covering) and block (for foundation) Notes: reclaimed brick from chimney was used in walkway at another project	0	0	0	3	0



	3.8	ADVANCED INSULATION MATERIALS & STRATEGIES		7	*		#	•
Yes	3.8.1	Airseal & Insulate Knee Walls R15-21	behind or sloped R38 -41	2	2	0	2	0
Yes	3.8.3	Spray foam insulation applied in stud cavities Notes: See photo of professional spray foam sealing	Default Value	1	1	0	1	0
	3.9	IMPROVE EXISTING WINDOWS, SKYLIGHTS AND DOORS		F	*		#	•
Yes	3.9.1	20 year warranty on all insulated glazing, sash and frame for reand/or doors having a frame of wood or wood with cladding	olacement windows	0	0	0	2	0
Yes	3.9.2	Replacement sash and units must meet energy code, be ENERG rated and be NFRC rated (existing window sashes are exempt)	Y STAR Default Value	0	0	0	0	0
Yes	3.9.3	Remove weight and fill weight cavity with foam insulation, wher hung sash are replaced. (no fiberglass insulation allowed for thi Notes: Used about 40 cans of foam on this house		0	0	0	0	0
Yes	3.9.4	Material type for replacement windows. Select only Replacements	ent windows are fiberglass	0	0	0	2	0
Yes	3.9.10	Install storm doors Notes: see photo		1	0	0	1	0
Yes	3.9.12	Install new weatherstrip AND thresholds or air sealing door swedoors Notes: install threshold, weather strip and sweep on door to babasement area is outside the envelope		1	0	0	0	0
Yes	3.9.13	Home equipped with covered entry ways that extend three feet from every exterior door. Existing covered entries also qualify. S Notes: Front and back porch are covered BP = 5'x8'. FP = 5'x11'		0	0	0	4	0
	3.10	IMPROVE UNFINISHED ATTICS THAT REMAIN UNFINISHED		7	*		#	
Yes	3.10.1	Air seal all attic penetrations (all plumbing, electrical and HVAC chases) and add continuous insulation on floor of attic to R-38 Notes: All penetrations were foamed during spray foam installa eliminated for 2nd floor ceiling, and the attic access for 1st floor moved to exterior only. Ceilings have 1	tion. The attic access was	4	1	0	1	0
Yes	3.10.3	1. Inspect and document existing roof ventilation system. (possimeasure 1A-1 was performed) 2. Design and specify venting improversion to non-vented system. (Projects not needing change qualify) Notes: ridge vent added, plus intact vent added to rear attic extension.	provements or s or improvements also	1	0	0	1	0



	3.11	ATTIC REMAINING UNFINISHED AIR SEALED & INSULATED	7	*		#	
Yes	3.11.1	Insulation with minimum 20% recycled content is used for at least 50% of applications. (based on R-value X Sq.Ft.) Notes: See images of re-used loose fill cellulose	0	0	0	1	0
Yes	3.11.1	Seal all attic by-passes. Notes: by-pass was eliminated in front of house, and by-pass is on exterior at back of the house	2	2	0	0	0
Yes	3.11.2	Access openings to existing attic and new knee wall areas are airsealed	1	0	0	0	0
Yes	3.11.4	Attic insulation total R50 or more (flat or vaulted) Notes: attic insulation = R-78 1.5" cc spray foam 1	6	0	0	0	0
Yes	3.11.6	Add 2� (low perm rated) rigid insulation to interior of sloped roof / ceiling for thermal break and vapor barrier Notes: Sloped roof spray foamed see photos. All attic ceiling framing had 1	2	1	0	1	0
Yes	3.11.8	Access openings to new attics and new knee wall areas are well insulated Horizontal Attic Access = R38 min & Vertical Knee Wall Access = R23 min. Notes: sloped ceilings have 5	1	0	0	0	0
	3.14	ROOF IMPRVD W/ADVCED ROOFING MATS & TECHIQS	7	*		#	
Yes	3.14.1	Self sealing bituminous membrane at valleys & penetrations (code required at eaves)	0	0	0	1	0
Yes	3.14.3	Metal drip edge at all roof edges & "W" shaped valley flashing at valleys	0	0	0	1	0

4 New Floor Wall and Roof

4. Nev	N FIOC	or, wall, and Root					
	4.2	NEW FOUNDATIONS, CRAWLSPACES, & SLABS	7	*		#	
Yes	4.2.5	Install 4" bed of 3/4" diameter or greater clean or washed gravel on top of basement and/or crawlspace soil before any other flooring work is done. Notes: When installing the drain tile, we covered the pipe with broken pieces of the concrete flooring and then gravel. Then covered that with concrete. We used sleeved pipe, to protect from clogging the aeration holes.	0	1	0	1	0
Yes	4.2.6	Recycled concrete, asphalt or glass for base or fill Notes: When installing the drain tile, we covered the pipe with broken pieces of the concrete flooring and then gravel. Then covered that with concrete. We used sleeved pipe, to protect from clogging the aeration holes.	0	0	2	2	0
	4.3	NEW EXT WALLS AG, FRAMEDFLRS, PART' WALLS&CEILNGS	7	*		華	6
Yes	4.3.4	Use of reclaimed (a.k.a. re-used) wall framing materials Notes: See photo of stacked and ready to re-use wall studs 30% to 49%	0	0	1	2	0
Yes	4.3.9	Subfloor with no added urea-formaldehyde (min. 90% of all new subfloor)	0	1	0	0	0
	4.4	ADVANCED FRAMING TECHNIQUES FOR WALL CONSTRUCTION	7	*		#	•
Yes	4.4.0	19.2" or 24" o.c. framing Notes: Garage walls and trusses are framed at 24	2	0	0	2	0



	4.5	ADVANCED INSULATION MATERIALS & TECHNIQUES USED	7	#		華	
Yes	4.5.3	Spray foam insulation applied in new studs Notes: See Spray foamed wall cavities photo	1	1	0	1	0
Yes	4.5.6	Rim joist connecting two conditioned floors are insulated to greater than R-23 Notes: R-28 minimum	1	0	0	0	0
Yes	4.5.8	Insulated headers (minimum of 80% of new headers) Notes: See photos of framing before insulation applied. 1	1	0	0	0	0
	4.6	ADVANCED AIR SEALING TECHNIQUES USED ON NEW WALLS.	7	#		#	
Yes	4.6.2	Seams and penetrations in rim joist between conditioned floors are sealed Notes: See professional spray foam sealing	1	0	0	1	0
Yes	4.6.3	Seal rim joists at all locations and connection with attic at exterior walls Notes: See professional spray foam sealing	1	0	0	0	0
Yes	4.6.6	Stud cavities shall be blocked at locations of varying ceiling height, such as in common walls between adjacent rooms	1	0	0	0	0
Yes	4.6.8	Seal drywall at top plate, bottom plate and penetrations with gasket, sealant or glue Notes: See professional spray foam sealing	1	1	0	1	0
	4.8	INTERIOR WALL FINISH MATERIALS	7	*		*	•
Yes	4.8.5	Interior wall finish is min. 1/2 inch from concrete slabs. Notes: see photos of basement walls	0	0	0	1	0
	4.9	NEW WINDOWS, SKYLIGHTS & DOORS	7	*		華	
Yes	4.9.0	New and Replacement units must meet energy code (existing windows are Default Value exempt)	0	0	0	0	0
Yes	4.9.2	Windows must be ENERGY STAR and National Fenestration Rating Council Default Value (NFRC) labeled (existing window sash are exempt) Notes: Need Docs from Wasco Windows	0	0	0	0	0
Yes	4.9.3	Flash windows and exterior doors with pan, side and head flashing Notes: see photos Default Value	0	0	0	0	0
Yes	4.9.4	Air seal around outside of window and door units with low expansion foam Default Value insulation.	0	0	0	0	0
Yes	4.9.6	West facing glazing less than 2% of floor area. (total of new and existing windows) Notes: See HES square footage and window area	1	0	0	0	0
Yes	4.9.7	East facing glazing less than 3% of floor area. (total of new and existing windows)	1	0	0	0	0
Yes	4.9.11	Door(s) with 1/2 glass or less. (min. 90% of all doors of this type) U-factor is 0.18 to 0.20 Notes: See door sticker	1	0	0	0	0
Yes	4.9.13	Door(s) have metal outer skin. (i.e. aluminum or steel) Notes: see photos	0	0	0	2	0
Yes	4.9.16	Install storm door at all entries. (sliding doors exempt) Notes: see photos	1	0	0	1	0



	4.10	NEW WINDOWS AND/OR SKYLIGHTS:(MIN. 90% OF UNITS)		7	*			
Yes	4.10.0	Windows and/or skylights have a U-factor of: (at least 90% of units) .24 or Notes: Need Docs from Wasco Windows	less	5	0	0	0	0
Yes	4.10.3	Windows and/or skylights are fiberglass		0	0	0	2	0
Yes	4.10.5	Window and/or skylight air leakage rating < 0.30 cfm/s.f.		2	0	0	0	0
Yes	4.10.6	East/west facing windows and/or skylights have SHGC ≤ 0.35		1	0	0	0	0

5. HVAC & Mechanical

	5.1	OVERALL PREREQUISITES		7	#		#	
Yes	5.1.0	All flex duct pulled tight-no pinches	Default Value	7	*	(1)		٥
Yes	5.1.5	All new ductwork must be sealed	Default Value	7	*	(1)	-	٥
Yes	5.1.6	All new gas appliances must be sealed combustion Notes: see photos	Default Value	7	*	(1)		٥
Yes	5.1.8	Install basic programmable thermostat(s) Notes: see photos	Default Value	7	\$	(B)		٥
Yes	5.1.9	No new air handling equipment shall be installed in a garage. If existing it must be in a room sealed off from automobile emissions, and with free as required by mechanical equipment within.		7	\$	(1)	man Manual Ma Manual Manual Ma Manual Manual Manual Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma	٥
Yes	5.1.10	All clothes dryers must vent to the outside Notes: see photos	Default Value	7	*		in the second	٥
	5.2	NEW SYSTEM(S) PREQUSITES		7	*		#	6
Yes		NEW SYSTEM(S) PREQUSITES No new unvented combustion units	Default Value	7	*	(4)	*	6
Yes Yes	5.2.0 5.2.2		Default Value Default Value	7 7	*	(4)	*	3 4 5
	5.2.05.2.25.2.3	No new unvented combustion units No equipment is permitted that intentionally produces ozone as a	Default Value Default Value s conditioned,	7 7 7	* *	•		3 3 4
Yes	5.2.05.2.25.2.35.2.6	No new unvented combustion units No equipment is permitted that intentionally produces ozone as a product rather than as an incidental by-product No air handlers or conditioning equipment shall be placed in unconditioned spaces (e.g., garage) Notes: Mechanical room is part of conditioned space. Rest of basement is	Default Value Default Value s conditioned, walls = R-18	7 7 7 7	* *			3 3 4 5 6

				_			
	5.3	VENTILATION AND FRESH AIR FOR OCCUPANTS	7	\$		#	
Yes	5.3.0	Design and install a whole house fresh air ventilation system. Notes: see photos. ERV = Renewaire EV-130	0	3	0	0	0
Yes	5.3.2	Install better ventilation in bathroom(s). 100% of all bathrooms Notes: Panasonic Whisper Green installed in both bathrooms, plus in basement laundry room/mechanical room	2	3	0	4	0
Yes	5.3.3	Properly Ventilate the Kitchen Hoodrange Installed	1	2	0	2	0
Yes	5.3.9	Heat or energy recovery ventilator installed	0	2	0	1	0
Yes	5.3.15	Install sub-slab soil gas / moisture vent system passive or active Notes: see photos	0	8	1	0	0
	5.4	DUCTING/AIR DISTRIBUTION STRATEGIES	7	*		#	
Yes		Installation of depressurization protection (make-up) air intake (with or without damper) in homes that have no air intake. Notes: see photos	0	1	0	0	0
	5.5	DUCTWORK	7	*		#	6
Yes	5.5.0	All newly added ductwork kept in conditioned space and interior walls. Ductwork allowed in vaulted ceiling provided it stays on the conditioned side and the minimum R-values are still met Notes: see photos. Chase for ducting to second floor was insulated prior to duct install	2	0	0	0	0
Yes	5.5.2	Design appropriate duct system using ACCA Manual D.	2	0	0	0	0
Yes	5.5.3	All supply duct take-offs spaced 6" apart minimum	1	0	0	0	0
Yes	5.5.4	All ductwork is rigid (no flex duct used anywhere)	1	0	0	0	0
Yes	5.5.5	Upgrade existing duct system by replacing with rigid ductwork and sealing with mastic, aerosol duct sealant or equivalent Notes: All ducts are new. MN code requires sealing all ducts	4	4	0	2	0
Yes	5.5.6	Existing duct trunk lines in un-conditioned space insulated R10	2	1	0	0	0
Yes	5.5.7	Furnace located to minimize length of duct runs Notes: Furnace in center of basement	2	0	0	1	0
Yes	5.5.10	Coordinate ductwork and framing	2	1	0	0	0
Yes	5.5.11	Protect all duct registers / returns with solid material during construction Default Value Notes: Covers were screwed on during rough-in phase and left in place until floor refinishing stage. Registers were stuffed with t-shirts and then taped with metal duct tape to seal during refinishing, then vacuumed and wiped clean as tape and t-shirts were removed.	0	1	0	0	0



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422 JUU	I AVE NOI III,	will lifeapolis,	111111111111111111111111111111111111111

	5.6	HEATING AND COOLING EQUIPMENT	7	*		#	
Yes	5.6.2	Condensation must drain into drain system not under slab Notes: drains into laundry sink, using pump located at furnace	7	\$	(1)	Marie de la companya	٥
Yes	5.6.3	Design and install heating a cooling equipment according to manual J calculations.	3	0	0	2	0
Yes	5.6.4	"Substantially better than ENERGY STAR (>9.0HSPF, > 94 AFUE Furnace, > 90 AFUE Boiler.) Heating & Cooling Equipment Efficiency. Notes: Furnace is 96% efficient. AC is only 13 SEER	15	0	0	0	0
Yes	5.6.8	Furnace is equipped with an electronically commutated fan motor (ECMs) (variable speed motor)	1	0	0	0	0
Yes	5.6.10	Verify proper refrigerant charge by HVAC contractor	1	0	0	0	0
6. Elec	trical						
	6.1	PREREQUISITES	7	*		#	•
Yes	6.1.0	New appliances must meet or exceed ENERGY STAR requirements Default Value Notes: see appliance list submitted to Greenrater Default Value	7	\$	(1)		٥
Yes	6.1.7	Minimum of one carbon monoxide alarm installed within ten (10) feet of Default Value each bedroom. Notes: Hardwired smoke detectors installed by electrician. All units wired together. One unit in each bedroom, and one in each hallway outside of bedroom within 4' of BR door.	7	*		Branch Br	•
	6.2	APPLIANCES		7 3			
Yes	6.2.2	Refrigerator - ENERGY Replace existing older than 1993 (ENERGY STAR rated required STAR rated and/or Install Super Efficient Home Appliances	d)	6 () 1	0	0
Yes	6.2.4	Dishwasher - ENERGY Replace existing older than 1993 (ENERGY STAR rated required STAR rated and/or Install Super Efficient Home Appliances	d)	2 (0 0	0	2
Yes	6.2.5	Clothes washer Replace existing appliances older than 1993 (ENERGY STAR rated required ENERGY STAR rated and/or Install Super Efficient Home Appliances	d)	4 (0	0	4
	6.3	FANS, FIXTURES AND LIGHTS		7 3		霊	
Yes	6.3.10	Install high efficient lighting in high use rooms 100% LE	D	6 2	2 0	1	0
Yes	6.3.22	Install automatic outdoor lighting controls or photocells/timers Notes: carport light and light for backyard have motion detectors		1 (0 0	0	0
	6.4	WIRING		7 3		#	•
Yes	6.4.0	Remove all knob and tube wiring from home		0 1	0 0	0	0
	6.5	ELECTRICAL SYSTEMS		7 3		#	
Yes	6.5.5	No electric in-floor heating		1 (0 0	0	0



7. Plumbing Systems & Fixtures

	7.2	EQUIPMENT	7	*		#	•
Yes	7.2.3	Install sump pump cover that is air tight & mechanically attached with full gasket seal. Notes: see photos. This is MN code requirement	0	1	0	0	0
Yes	7.2.11	Install an improved efficient and sealed water heater Notes: see photos and specs Heat Pump	3	1	0	0	0
	7.3	FIXTURES	7	*		#	6
Yes	7.3.5	Limit shower heads to one per shower	0	0	0	0	2
Yes	7.3.6	Average installed efficient flow rates of all shower heads 1.5 GPM	1 0	0	0	0	4
Yes	7.3.11	Average installed efficient flush rates of all toilets 1.6 GP	0	0	0	0	3
Yes	7.3.16	Average GPM on all aerators are low flow 2.2 GPM	1 0	0	0	0	1
Yes	7.3.20	Shut off valve, motion sensor, or pedal activated faucet to enable intermittent on/off operation (kitchen or lavatory)	0	0	0	0	2
	7.4	PIPING	F	*		#	
Yes		Use copper alternative (PEX) when adding new or replacing existing water supply pipes Notes: Copper had to be used when connecting main water valve, tub spout, and outside spigot. Otherwise, all water supply lines are PEX	0	1	1	1	0
Yes	7.4.2	Replace galvanized water lines	0	3	0	0	0
Yes		Insulate all hot water lines to minimum R-4 Notes: see photos. This is MN code requirement	2	0	0	0	0
Yes		Centralize water heater, place as equidistant from fixtures as possible Notes: Water heater is 4' from furnace, located equidistant from 1st floor bath and run to 2nd floor bath	2	0	0	0	1
Yes		Perform a water leak test and remediate leaks discovered Notes: All appliances tested and meter checked for 24 hour leak with no occupant use	0	0	0	0	1
	7.5	WATER SYSTEMS	7	*		#	6
Yes		No PVC piping for drains, wastes and vents Notes: all ABS, See photos	0	2	0	0	0
Yes		No garbage disposal Notes: need photo	1	0	0	0	1

8. Finish Materials & Coatings

	8.1	PREREQUISITES	•	3 (*		霊	6
Yes	8.1.0	Pre Occupancy Air Flush Notes: Final paint work completed in February. Home not yet occupion 16th, 2017	Default Value ed, as of April	7	\$	(1)		٥
Yes	8.1.3	No paper-coated drywall in shower or tub surround or other moisture-rich area	Default Value	,	\$	(1)		٥
Yes	8.1.4	No vinyl wall coverings allowed in moisture-rich areas Notes: No vinyl wall coverings in the entire house	Default Value	;	‡	(1)		٥
Yes	8.1.5	All new carpet must be CRI Green Label Plus or third-party certified a Notes: no carpet in the house	as low-emitting.	7	#	(1)		٥
	8.2	WALL AND CEILING SURFACE MATERIALS & COATINGS		7	*		#	6
Yes	8.2.0	Primer is low or no voc	Very Low Voc	0	4	0	0	0
Yes	8.2.7	Install tile or stone for all shower or tub surrounds Notes: see photos		0	2	0	0	0
	8.3	WALL & CEILING DECORATIVE COVERING ATTRIBUTES		7	*		#	
Yes	8.3.4	Low emitting or no-added-formaldehyde (NAF or NAUF) Notes: No formaldehyde in the cabinets,	90% of square footage	0	2	0	0	0
Yes	8.3.7	FSC certified	50% of square footage	0	0	0	1	0
	8.4	FLOORING		7	*		#	
Yes	8.4.0	Salvage/reclaimed/recovered (Flooring) Notes: Of 1,235 of finished sq ft of house, 746 is wood flooring. 521 of were saved and refinished. We had to remove wood floor in 2nd floor lead paint on it, and MN State abatement regulations required it be removed.	or BR because it had	0	0	1	3	0
Yes	8.4.0	Refinishable / Resurfaceable (Flooring)	50% of square footage	0	0	0	2	0
Yes	8.4.0	Recyclable (Flooring)	50% of square footage	0	0	0	1	0
Yes	8.4.2	Install all hard-surface flooring (no carpet)		0	6	0	1	0
Yes	8.4.2	No wall-to-wall carpet in bathrooms, kitchens, entryways and utility r	rooms	0	1	0	0	0
Yes	8.4.5	Finished floor and underlayment contains no added urea-formaldeh	yde	0	1	0	0	0
	8.6	INTERIOR DOORS WITH GREEN ATTRIBUTES		7	*		#	
Yes	8.6.0	FSC certified (Interior Doors) Notes: Need to check on this	90% of square footage	0	0	2	2	0
	8.8	CABINETRY WITH GREEN ATTRIBUTES		F	*		華	
Yes	8.8.5	Low emitting or no-added-formaldehyde (NAF or NAUF) (see require Notes: See docs from Northland Cabinets, emailed to Greenrater	ments in manual)	0	2	0	0	0

	8.9	COATINGS AND ADHESIVES	7	*		#	
Yes	8.9.0	Supply workers with VOC protection	0	2	1	0	0
9. Was	ste M	anagement					
	9.1	CONSTRUCTION & DEMOLITION WASTE	7	#		#	
Yes	9.1.0	Require subcontractors to participate in waste reduction and recycling efforts Notes: Sign posted onsite for duration of project. All subs were instructed by Sean to leave waste on site, where General Contractor handled disposal	0	0	2	1	0
Yes	9.1.2	Grind wood waste and stumps and use as mulch (70% minimum) Notes: see photos. We needed more mulch, which we collected from a City site where they leave their grinded stumps	0	0	0	1	0
Yes	9.1.7	Building materials stored on site are protected from weather exposure. Materials wetted during the construction process are allowed to dry before enclosing in building assembly. Notes: materials were stored in either the garage (once the roof was installed) or inside the house	0	1	0	1	0
Yes	9.1.10	Donate, sell or give away excess materials for reuse Notes: Much of excess materials was transferred to GC's other projects. Other excess materials were given to subs. Basketball hoop in backyard was given to electrician doing rough-in work, who set it up at his home	0	0	1	0	0
Yes	9.1.11	Store and provide weather protection to building materials for future use by homeowner Notes: materials stored in garage attic. Paint stored in basement, to protect from freezing.	0	0	1	0	0
	9.2	DECONSTRUCT FOR REUSE THE FOLLOWING ITEMS	7	*		#	
Yes	9.2.5	Dimensional lumber regraded for structural use (minimum 20% landfill diversion) Notes: studs from 1st floor interior walls were reused on 2nd floor, or reused in to rebuild 1st floor hallway	0	0	2	1	0
Yes	9.2.8	Insulation (minimum of 50%) Notes: All cellulose was reused, or kept in place in the attic	0	0	1	1	0

	9.3	RECYCLE THE FOLLOWING ITEMS	F	*		華	
Yes	9.3.0	Packaging Notes: all cardboard was recycled. Some foam was mixed into insulated attic along with cellulose	0	0	1	0	0
Yes	9.3.2	Workers' beverage containers Default Value Notes: Sign was posted and I verbally encouraged using reusable beverage containers.	ie 0	0	1	0	0
Yes	9.3.3	Cardboard from new fixtures, appliances, and cabinets (90% minimum) Notes: all cardboard was recycled	0	0	1	0	0
Yes	9.3.4	Metal - copper, brass, lead and aluminum and non precious metals like steel, tin or shee metal (90% minimum) Notes: see photos	et 0	0	1	0	0
Yes	9.3.5	Asphalt roofing (70% minimum) Notes: see docs from roofing company	0	0	1	0	0
Yes	9.3.6	Brick and block (70% minimum) Notes: chimney brick was saved and relocated to another job site, where it was used to frame a walkway	0	0	1	0	0
Yes	9.3.9	Paints, primers, stains and sealants (100% recovery at hazardous waste site) Notes: Either left on site for homeowner to use, taken to another project to use. There was no disposal, except for empty containers.	0	0	1	0	0
Yes	9.3.10	Recycle or compost yard waste (minimum 90%) Notes: Limbs in fences, and volunteer tree in front yard were buried in Hugels. One hug in back yard, and another one along the east side of the carport. All dirt taken from yard was used to grade the back yard. See photos		0	1	0	0
Yes	9.3.11	Wood scrap and broken pallets (70% landfill diversion) Notes: Atomic Recycling LLC sort and recycled the deconstructed garage debris	0	0	1	1	0

10. Education

	10.1	HOMEOWNER AND SUBCONTRACTOR EDUCATION		F	*		#	
Yes	10.1.22	Educate the homeowner about how to "operate" their home	Default Value	7	\$	(1)	10 mm	٥
Yes	10.1.23	Provide homeowner with a user's manual	Default Value	7	*		-	•



11. Reduced exposure to EMFs

	11.1	DESIGN FOR REDUCED ELECTRICAL AND MAGNETIC FIELDS	7	*		霊	6
Yes	11.1.3	Ground electrical panel to approved dedicated �Hammered-In� ground stake (not rebar, plumbing pipes or any integral part of the house) Notes: required by State electrical code	0	2	0	0	0
Yes	11.1.7	No fluorescent light fixtures or transformers for halogen lighting systems in ceiling beneath a child's bedroom or within 6' of a sleeping area. Notes: all lighting is LED	0	1	0	0	0
Yes	11.1.9	Wall-mounted electric heaters are installed at least 6' away from sleeping area Notes: none used in this house	0	1	0	0	0
Yes	11.1.14	Refrigerator is not located within 6 feet of sleeping area Notes: See scope page 33,	0	1	0	0	0