

Building Phases

Phases, Activities, Resources and Estimates

Order of Operations

Site Setup		
➤ This phase includes preliminary work for getting the site ready		
Activities	Performed By	Described In
<ul style="list-style-type: none"> Site clearing Permitting Surveying Set up temporary electric Acquire the Port-a-John 	Contractor HFH Staff Contractor HFH/Contractor Contractor	3 – Foundation
Predecessors	None	
Duration	6 to 8 weeks	

House Foundation		
➤ This phase includes activities to create the house foundation.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> Excavation Install the footers Install the Interior drainage Pour the basement walls Insulate the basement walls Gas and water services Install/Repair/Replace the sewer Back-filling Install the safety fencing 	Contractor	3 – Foundation
Predecessors	Site Setup	
Duration	2 to 3 weeks	

First Floor Deck		
➤ This phase will include all work to build the first-floor deck		
Activities	Performed By	Described In
<ul style="list-style-type: none"> Install the sill plates Install the basement bearing walls 	Volunteers	5 – Decks

<ul style="list-style-type: none"> • Install the floor joist and LVLs • Install the strong-backs • Install the decking • Install the guard rails • Install the temporary stairs to the deck 			
Predecessors	Foundation		
Duration	2 – 3 weeks		

First Floor Framing

<ul style="list-style-type: none"> ➤ This phase will include all activities to install the first floor wall panels. ➤ For one-story houses, this phase will include the interior stairway. ➤ This phase maybe delayed until the Adopt-A-House team or Project Lead is available. ➤ If pre-built walls will be used, this phase must be coordinated with delivery of the walls. 		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the first floor exterior and interior walls • Install the basement stairs (1-story only) 	Volunteers	6 – Walls 4 – Framing Materials & Tools
Predecessors	House Foundation	
Duration	1 week	

Concrete Porch Cap

<ul style="list-style-type: none"> ➤ This phase includes activities associated with installing the concrete caps on the front and back porches. ➤ This phase will be schedule as soon as the 1st floor exterior walls are complete. 		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Insulation foundation wall behind the porches 	Volunteers	6 – Walls
<ul style="list-style-type: none"> • Forming and pouring the caps 	Contractor	
Predecessors	First Floor Framing.	
Duration	3 days	

Porch Framing

<ul style="list-style-type: none"> ➤ These activities will be performed after the porch cap is poured. ➤ If the contractor is delayed, these activities can be performed using alternative post bases. 		
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Activities	Performed By	Described In
<ul style="list-style-type: none"> Install the porch posts and beams 	Volunteers	7 – Porch Framing
Predecessors	Concrete Porch Cap First-floor wall framing	
Duration	1 week	

Second Floor Deck

- For two-story houses, this phase will include all of the work to build the second floor deck and the interior stairways.

Activities	Performed By	Described In
<ul style="list-style-type: none"> Install the interior Stairs Set up wall scaffolding Install the floor joist and LVLs Install the strong-backs Install the decking Install the guard rails 	Volunteers	10 – Scaffolding 5 – Decks
Predecessors	First Floor Framing Porch Framing	
Duration	2 weeks	

Second Floor Framing

- For two-story houses, this phase will be performed to construct the second-floor walls.

Activities	Performed By	Described In
<ul style="list-style-type: none"> Install the second-floor exterior and interior walls 	Volunteers	6 - Walls
Predecessors	Second Floor Deck	
Duration	1 -2 weeks	

Roof Framing

- This phase includes all activities to prep and install the roof framing.
 ➤ At the Project Leaders discretion, this phase may also include prepping the gable end trusses with Styrofoam and siding.

Activities	Performed By	Described In
<ul style="list-style-type: none"> Prep the roof trusses Install the cornice returns Set the roof trusses Install the sub-fascia Install the wind bracing 	Volunteers	8 – Roof Framing 11 – Exterior Insulation

<ul style="list-style-type: none"> • Optional gable end prep <ul style="list-style-type: none"> ○ <i>Exterior Dow Styrofoam</i> ○ <i>Frieze Board</i> ○ <i>Cornice Covering</i> ○ <i>Soffits and Siding</i> 		17 – Exterior Trim 16 - Siding
Predecessors	1 st and 2 nd Floor Framing	
Duration	1 - 2 weeks	

Roofing		
➤ This phase includes all activities to install the roof sheathing and roofing.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the roof sheathing • Install the drip edge • Install the weather shield • Install the shingles 	Contractors	9 - Roofing
Predecessors	Roof Framing	
Duration	1 -2 days	

Walkways & Parking Pad		
➤ This phase includes activities for installing the concrete flat work ➤ This phase will be scheduled as early as possible after the roof framing is complete, depending on the contractor’s availability.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Form and pour the porch steps • Form and pour the sidewalks • Form and pour the parking pad 	Contractor	27 – Walkways & Parking Pad
Predecessors	Porch caps Roof Framing	
Duration	3 – 5 days	

Finish Framing & Fire Rating		
➤ This phase includes all activities to create framing for mechanicals and drywall. ➤ This phase also includes all activities required to create any fire-rated assemblies required.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the interior soffits & chases • Install stair and cabinet blocking • Build the basement shelving 	Volunteers	6 – Walls 13 - Finish Framing

<ul style="list-style-type: none"> • Install the communication and plumbing termination boards • Fire-rated wall assemblies 		15 – Rough Mechanicals
Predecessors	Second Floor Deck	
Duration	1 -2 weeks	

Water Plane, Windows & Doors

Fire-Rated Wall assemblies must be inspected before installing Dow over them		
<ul style="list-style-type: none"> ➤ This phase will include all activities to “weather-in” a house. ➤ Once the house is weather-proofed, the contractors will begin the Rough-In Mechanicals. 		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the exterior dow Styrofoam • Install the flashing • Install the windows • Install the exterior doors 	Volunteers	11 – Exterior Insulation 12 – Windows & Doors
Predecessors	Wall Framing (Styrofoam on gable end trusses may be included in the Roof Framing) Fire-rated Wall Assemblies Roof Framing	
Duration	2-3 Weeks	

Exterior Trim

Porch Framing must be inspected before installing the porch trim		
<ul style="list-style-type: none"> ➤ This phase includes activities for installing porch, window and frieze board trim. 		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install frieze boards (if not done with gable end prep) • Install porch trim • Build porch railing • Install exterior stairs railings and handrails 	Volunteers	17 – Exterior Trim
Predecessors	Porch Framing Roof Framing	
Duration	1-2 Weeks	

Exterior Painting

<ul style="list-style-type: none"> ➤ This phase includes all activities for caulking and painting the exterior trim and doors.

Activities	Performed By	Described In
<ul style="list-style-type: none"> • Paint exterior doors • Paint porch trim • Paint porch railings • Paint other exterior trim 	Volunteers	21 - Painting
Predecessors	Exterior Trim	
Duration	3 – 4 weeks	

Siding

<ul style="list-style-type: none"> ➤ This phase includes activities to install the exterior wall coverings. ➤ This phase will be performed in tandem with the Rough-In Mechanicals 		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the J-blocks • Install the siding • Install the soffits • Install the fascia 	Volunteers	15 – Rough Mechanicals 16 - Siding
Predecessors	Water Plane	
Duration	3 to 6 weeks (Volunteers)	

Pre-Mechanicals Air Sealing & Insulation

<ul style="list-style-type: none"> ➤ This phase includes activities to seal chases and other areas which may be covered by HVAC and plumbing systems. 		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install bathtub enclosure sheathing • Insulate double walls and chases • Seal the basement slab • Install the basement Thermax 	Volunteers	14 – Air Sealing
Predecessors	Finish Framing	
Duration	1 – 2 days	

Rough-In Mechanicals

<ul style="list-style-type: none"> ➤ This phase includes activities to rough-in the HVAC, plumbing, gas and electrical systems. 		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Electrical wiring and boxes • Plumbing lines • Sump pump • Radon system • Water manifold • Gas lines 	Contractors	15 – Rough Mechanicals

<ul style="list-style-type: none"> • HVAC ductwork • Furnace • Electrical panel and service • Bathtub / shower (must be coordinated with the Pre-Mechanical Air Sealing) 			
Predecessors	Framing Roof Framing Roofing Pre-Mechanical Air Sealing Water Plane		
Duration	1 -2 weeks		

Air Sealing		
➤ This phase includes activities to seal exterior and plate penetrations.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Seal windows & doors • Seal plate penetrations • Seal gaps, chases, and plates • Install insulation baffles 	Volunteers	14 – Air Sealing 19 - Insulation
Predecessors	Rough Mechanicals	
Duration	1-2 Weeks	

Wall Insulation		
Walls cannot be netted or insulated until the Structural inspection is complete.		
➤ This phase includes activities to insulate the insides of the exterior walls		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install insulation netting • Insulate the walls 	Volunteers	14 – Air Sealing 19 - Insulation
<ul style="list-style-type: none"> • Insulate joist bays 	HFH Staff/ Volunteers	
Predecessors	Air Sealing	
Duration	1-2 Weeks	

Drywall Prep		
➤ This phase includes activities performed to prepare for the drywall installation.		
Activities	Performed By	Described In

<ul style="list-style-type: none"> • Clear work areas of materials and tools • Complete the Pre-Drywall Checklist 	Volunteers	20 - Drywall
Predecessors	Air Sealing Air Sealing and Insulation Aware, Thermal Bypass and Insulation inspections	
Duration	1 day	

Drywall		
<ul style="list-style-type: none"> • The drywall cannot be installed until AWARE Air Sealing, AWARE Insulation, City Insulation and Thermal Bypass inspections are complete. • If any walls are part of a fire-rated wall assembly, the drywall cannot be finished until the fire-rated wall assembly is inspected. 		
<p>➤ The drywall will be installed by either volunteers or contractors on a case by case basis. The drywall finishing will always be performed by contractors. Estimated time for this phase is 7 to 10 days if only using contractors and 3 to 5 weeks for both volunteers & contractors.</p>		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Hang the drywall • Finish the drywall • Texture the ceilings 	Contractors	20 - Drywall
Predecessors	Drywall Prep	
Duration	7 – 10 days	

Post Drywall Air Sealing and Insulation		
<p>➤ This phase includes air sealing activities which are performed after drywall installation.</p>		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Caulk ceiling fixtures • Insulate the attic • Insulate the attic accesses 	Volunteers	14 – Air Sealing
Predecessors	Drywall	
Duration	1-2 Days	

Paint Prep		
<p>➤ This phase includes activities to prepare for painting</p>		
Activities	Performed By	Described In

<ul style="list-style-type: none"> • Sand the floors • Cleanout HVAC ducts • Clean walls and floors • Clean the stairs 	Volunteers	21 - Painting
Predecessors	Drywall	
Duration	1 day	

Interior Painting		
➤ This phase includes activities for covering the interior walls and trim with paint.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Paint the walls • Paint the interior trim • Paint the Interior doors • Paint the stairs stringers and treads 	Volunteers	21 - Painting
Predecessors	Post Drywall Air Sealing Paint Prep	
Duration	3 – 4 weeks	

Cabinets		
➤ This phase includes activities for installing the kitchen and bath cabinetry.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install kitchen cabinets • Install kitchen countertops • Install bathroom vanities & sink tops • Cut opening for kitchen sink 	Volunteers	22 - Cabinets
Predecessors	Painting	
Duration	1 to 2 weeks	

Vinyl Flooring		
➤ This phase includes activities for installing vinyl plank flooring.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the vinyl planks • Install the transition strips 	Volunteers	25 - Flooring
Predecessors	Cabinets	
Duration	2 – 3 weeks	

Interior Doors and Trim		
➤ This phase includes activities for installing the interior doors, door casing, window trim, baseboards, knee wall caps and handrails.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install pre-hung doors • Install bypass doors • Install casing • Install window trim • Install kick plates • Install cabinet trim • Install baseboards • Install quarter round • Install knee wall caps • Install handrailing • Install shoe molding (If needed) 	Volunteers	23 – Interior Doors and Trim 22 - Cabinets
Predecessors	Vinyl Flooring	
Duration	2-3 weeks	

Finished Mechanicals		
➤ This phase includes activities for completing the HVAC, plumbing, gas and electric systems.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Electrical fixtures • Toilets • Sinks • Hot water tank • A/C Condenser • All remaining mechanical items 	Contractors	24 – Finish Mechanicals
Predecessors	Painting, Cabinets	
Duration	1 to 2 weeks	

Interior Finishes		
➤ This phase includes activities for installing the interior final items.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the door hardware • Install the closet shelving • Install the bathroom accessories & mirrors 	Volunteers	26 – Interior Finishes

<ul style="list-style-type: none"> • Install the stairway handrails • Install the window blinds • Install the door viewers • Install the Home Owner Fire Extinguishers 		
Predecessors	Interior doors and interior trim	
Duration	1 week	

Gutters & Downspouts		
➤ This phase includes the activities for installing the gutters.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Drop Eaves/Gutters • Downspouts 	Contractor	18 – Gutters
Predecessors	Siding Exterior Painting Conductor Lines	
Duration	1 day	

Landscaping and Exterior Finishes		
➤ This phase includes the activities for installing the landscaping materials and exterior final items.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the bushes and trees • Plant the grass seed • Install other landscaping materials • Install the mailbox • Install the house numbers • Install the splash blocks 	Volunteers	28 – Exterior & Landscaping
Predecessors	Walkways and parking pad Conductor lines Gutters and Downspouts	
Duration	1 to 2 weeks	

Carpeting		
➤ This phase includes the activities for installing the carpeting		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Carpeting • Transition strips 	Contractor	25 - Flooring

Predecessors	Interior trim Interior finishes
Duration	1-2 days

Clean-up and Final Inspections		
➤ This phase includes the activities for ensuring the house is clean and the work is complete.		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Clean the house • Certificate of Occupancy • Perform Final Walkthrough Inspection • Correct Walkthrough items 	Volunteers Habitat	29 – Clean Up 30 – Final Walkthrough
Predecessors	Everything except carpeting and landscaping (during winter months),	
Duration	1-2 weeks	

Appliances		
➤ This phase includes activities for installing the appliances. ➤ The microwave normally is installed with the final items. ➤ The remaining items will be installed just prior to closing		
Activities	Performed By	Described In
<ul style="list-style-type: none"> • Install the microwave • Install the refrigerator • Install the range • Install the dishwasher 	Volunteers	31 - Appliances
Predecessors	Closing	
Duration	1 to 2 weeks	