

**SPECIFICATIONS
For
WynnCall
300 Tyneloch Drive
Tynecastle Development
Banner Elk, N.C.**

PLANS & SPECIFICATIONS-

These specifications along with the attached drawings by Nancy E. Harrison Designs describe the spacious, energy-efficient, custom designed 5 bedroom, 5 1/2 bath house being built by Tynecastle Builders, Brett Schwebke, Builder. This project is a work in progress. Changes from the plan and specifications are at the builder's discretion.

WORK & MATERIALS-

All work will meet or exceed all state and local building codes. All materials will be installed according to manufacturers' specifications.

WORK & MATERIALS NOT COVERED IN SPECIFICATIONS-

All required work & materials not specifically called for in these specifications will be included. The quality of unspecified work and materials will be consistent with overall construction and in accordance with standard construction practices.

FEES, PERMITS, AND INSURANCE-

All required permits, hook-up fees and insurance will be included. All workmen will be covered by Workman's Compensation and general liability insurance. Contractor will carry insurance on project until homeowner's policy is in effect at completion of house.

SITE WORK & DRIVEWAY-

All driveways and parking areas will be paved and the site will be landscaped with native plantings.

WATER SYSTEM-

A private well has been drilled on the property.

TERMITE TREATMENT-

All footings, backfill, and slabs will be pre-treated to protect against termites. Contractor will provide the certificate of treatment issued by A-1 Pest Control at closing. Additional treatments will be required in the future to maintain warranties.

FOOTINGS-

24" x 12" (min.) continuous concrete (3000 PSI compressive strength @ 28 days-typical) footings with 3- #4 steel rebar continuous. Footings stepped as required by grade. Fireplace foundation has 12" thick concrete pad with #4 steel rebar @ 12" each way. Fireplace pad projects 12" beyond edge of fireplace foundation. Deck piers are supported by 24" x 24" CMU or poured concrete piers on 36" x 36" x 12" concrete pads unless otherwise noted.

FOUNDATION WALLS-

Main house & porch foundation walls are 8" solid poured concrete walls with horizontal & vertical steel rebar reinforcing. Foundation cavity is filled solid with gravel. Connector & Garage foundation walls are 12" CMU, poured solid with concrete, with pre-cast concrete lintels over openings as required.

RETAINING WALLS-

Any CMU wall where the difference in grade on each side is greater than 48" is considered a retaining wall. All retaining walls are constructed with 12" CMU retaining wall block and reinforced with #4 steel rebar vertical @ 16" o.c. and 2- #4 steel rebar horizontal every third course (24" o.c.). All steel is lapped at least 24" and tied with wire. All retaining walls are poured solid with pea-gravel concrete (4000 PSI compressive strength @ 28 days).

FOUNDATION FINISH-

All exposed foundation walls, deck columns and porch piers will be finished with 2" native stone and stucco.

WATERPROOFING-

The exterior of all foundation walls below grade is waterproofed and insulated with the TUFF-N-DRI Waterproofing System from Koch Materials Company and professionally installed by Foothills Waterproofing, Inc.. The TUFF-N-DRI Waterproofing System is the #1 brand of waterproofing in North America and carries a 15-year limited warranty. The interior of all foundation walls is sealed with UGL Drylock masonry waterproofing.

FOUNDATION DRAIN-

Includes 4" perforated drain pipe set in washed stone around perimeter of house with filter fabric over washed stone. All drain pipes are run at least 15 ft. from house.

MAIN HOUSE & PORCH SLABS-

Working slab is 4" thick fiber-embedded concrete (4000 PSI @ 28 days) slab #4 steel rebar @ 24" o.c. each way over 6 mil poly vapor barrier and crushed gravel. Perimeter is insulated with 1/2" blue board. Finish slab will be 4" thick concrete over 2" blue board installation finished with 2" stone in mortar bed.

GARAGE WING SLABS-

Garage slab will be 4" thick concrete (4000 PSI @ 28 days) slab with 6 x 6 W1.4 x W1.4 welded wire fabric, #5 steel rebar @ 6" o.c. in ribs, over engineered steel I-beam system and corrugated steel decking. Garage slab will pitched towards garage floor drains. Lower level slab will be 4" thick concrete (4000 PSI @ 28 days) slab with 6 x 6 W1.4 x W1.4 welded wire fabric over 6 mil poly vapor barrier and 4" gravel bed. Garage and lower level slabs will be have a sealed finish.

P.T. PLATES-

Includes 2 x PT plates at floor framing installed over sill sealer with 1/2" anchor bolts.

FLOOR FRAMING-

Upper floor system will be 11 7/8" International Beam engineered I-joists supported by Roseburg LVL beams and engineered steel I-beams.

SUB-FLOORING-

Sub-floor sheathing includes 3/4" plywood glued and fastened to floor joists.

TIMBER FRAME-

All timber frame systems are engineered with #1 partially air dried Douglas fir with traditional mortise and tenon pegged joinery and finished in a hand hewn texture with a Watco Danish oil finish in dark walnut.

EXTERIOR WALLS-

Main floor frame walls will be 2 x 6 x 120" studs @ 16" o.c. with 2 x 6 P.T. bottom plate and double 2 x 6 top plate. Upper floor walls and gable-ends will be 2 x 6 x 105" studs @ 16" o.c. with 2 x 6 bottom plate and double 2 x 6 top plate. All wall openings shall have double 2 x 10 box headers. Exterior wall sheathing will be 1/2" CDX plywood. The house will be wrapped with house wrap installed as manufacturer specifies. WeatherWatch sealing tape will be installed around all doors and windows with copper flashing above.

ROOF FRAMING-

Main roof system will be 10 1/4" Insulated Structural Panels by Insulspan with 7/16" skins and 9 3/8" expanded polystyrene cores. Garage will be pre-engineered attic roof trusses. All trusses will be anchored with appropriate hurricane ties on each member.

ROOFING-

Roof sheathing will be 1/2" CDX plywood. Structural insulated roof panels will be sheathed with 1/2" CDX plywood (minimum). Roof finish will be selected by contractor and installed as manufacturer specifies with a 50 yr. limited, transferable warranty (minimum) and Class A fire rating. All roofs include 3' wide copper flashing at all valleys and copper snow guards at roof perimeter with ice shield underlayment over entire roof.

GUTTERS & DOWNSPOUTS-

Includes half round copper gutters and downspouts at roof perimeter. All gutters and downspouts drain into 4" underground drain pipes which is run at least 15' from the house to remove all roof drainage from foundation area.

SIDING & EXTERIOR TRIM-

The exterior of the house will be finished with a combination of 10" R.S. bevel-edge horizontal lap cedar siding (STK or better), channel rustic cedar siding, cedar shakes, poplar and walnut bark siding. Exterior trim to include 8" R.S. cedar skirt board capped with copper flashing, 6" R.S. cedar corner trim, 4" R.S. cedar window trim with copper flashing above, and 2x R.S. cedar fascia boards with a 4" R.S. cedar trim board on the rakes. All soffits are T&G pine with a v-groove. All cedar siding and trim will be installed with stainless steel, Slim Jim nails and poplar bark is installed with galvanized nails. All siding and trim finished with Log Home Oil Finish which allows the wood to breathe, resists mildew and UV rays, repels water, and enhances the natural beauty of the wood.

PORCHES & TERRACES-

All terraces to have poured reinforced concrete foundation with 4" thick concrete slab finished with stone. Porches are Douglas fir timber frame as described above with 2 x 6 T&G spruce decking and 1/2" (minimum) CDX plywood sheathing.

WINDOWS & EXTERIOR DOORS-

Hurd energy-efficient aluminum-clad wood casement, awning, and double-hung windows, and patio doors will be as shown with dark anodized bronze frames & medium anodized bronze sashes with insulating Low-E glass, insect screens, and extension jambs. Windows in main house have white oak jambs and in Garage wing have pine jambs. Header heights vary throughout the house.

ENTRANCE DOORS-

Entry Door- Custom hardwood door as per contractor

Garage Area- 3- 3-0 x 6-10 insulated metal or fiberglass doors to exterior and to house as required by code.

Garage- Two 9-0 x 7-0 overhead insulated carriage style garage door with door openers in wood finish.

Provide all hardware. Locksets will be Entek.

INSULATION/ SOUNDPROOFING-

Wall & floor insulation will be spray-in foam insulation to R-19

Roof insulation is integral in SIPs and rated at R-40. Conventional framed roofs to have R-38 batts (minimum) with baffles to maintain 1" airspace.

Insulated and soundproofed interior walls will use Bonded Logic natural cotton fiber insulation.

Contractor will insulate with expanding foam & Weatherwatch around doors and windows.

INTERIOR PARTITION FRAMING-

Interior walls will be 2 x 4 studs @ 16" o.c. with 2 x 4 bottom plate and double 2 x 4 top plates. All plumbing walls and pocket door walls will be typical 2 x 6 walls as shown.

All wall openings to have double 2 x 10 box headers. All plates on concrete are pressure treated.

INTERIOR FINISHES-

See Attached Schedule-

INTERIOR DOORS-

All main level doors are 7'6" custom-made 1 3/4" hardwood pre-hung doors except in Garage area, upstairs of main house and in garage wing which are 6'10". All hardware included. Locksets will be Schlage.

INTERIOR TRIM-

Includes 1 x 4 wood door & window casing with trim details in white oak & pine.

Includes 1 x 5 wood baseboard with trim details in white oak & pine.

Master Bedroom closet will have custom built-in hardwood closet system. All other closets to have ventilated wood closet systems.

INTERIOR PAINT & STAIN-

All interior walls will be primed and painted with Benjamin Moore latex paint in Navajo white. All wood doors and trim will be stained natural and sealed with 2 coats semi-gloss polyurethane with sanding between coats. Ceilings will be stained with one coat of natural stain and sealed with two coats of semi-gloss polyurethane. T & G spruce ceilings will receive two coats of Zar poly-stain in Honey Maple.

CABINETRY-

Cabinetry includes quality custom hardwood base and wall cabinets in Kitchen, Pantry, Mudroom and Laundry, and custom hardwood vanities in all bathrooms. Kitchen cabinets will be custom built by local craftsman with solid wood face frames and doors and laminated wood partitions - no particle board will be used. Kitchen cabinets will be open above with no dropped soffits and have recessed Xenon lighting and receptacles. Kitchen counter tops will be granite. Master Bath, Laundry room, and all bath cabinetry will be custom hardwood cabinets. Master Bath vanity tops will be marble. Bathroom vanities and Laundry room cabinets will have granite or marble tops.

BATH KITS-

Each bath will be complete with towel rods, toilet paper holders, mirrors, glass shower doors.

APPLIANCES-

Appliances will include stainless steel Sub-Zero refrigerator with ice maker, Wolf cooktop and oven, one single and one double dishwashing drawer with integrated cabinet panels, disposal, and L.G. Titanium front loading clothes washer and dryer. .

LIGHTING FIXTURES & CEILING FANS-

House will have ceiling fans in bedrooms, Family Room, and Office, florescent lights in Garage, recessed cans throughout, and sconces as accents in locations determined by the builder. All fixtures will be either custom made by Lightcrafters or Ponderosa or purchased from Kalco, World Imports, or Hubbardton Forge.

FIREPLACES-

Residence will include 6 masonry fireplaces in the Living Room (2), Library, Sunroom, Master Bedroom, and Master Bedroom porch. Fireplaces will have native stone hearths and facings to ceiling and custom mantels from the building site. Fireplaces will be wood-burning but equipped with gas log starters.

PLUMBING-

Includes complete plumbing system to code with simple drain-down and 3 frost-proof hose bibbs as follows: 1- hot & cold @ Garage and one cold water @ each porch. All bathrooms will have Toto elongated toilets and Delta Select, Hans Grohe, or Sigma faucets. Fixtures in the Master bath will include a Bain Ultra free-standing tub (Style: Balneo, Model: Naos) with Thermo Masseur, 1- marble steam shower with 3 separate showerheads with Temp-Sensor valves (one standard, one 7" rainhead, and one handheld), and marble vanity tops with double self-rimming drop-in lavatories. Other baths will have cast iron tub/ shower units with single bowl sink granite vanity tops with travertine surrounds in Bath #2 and Bath #3. Powder room will have marble vessel sink

PLUMBING- (Cont...)

on custom pedestal with vessel spout. The kitchen will have farm-style sink with a hand-held spray faucet and disposal and pasta spout/pot filler at cook top. Laundry Room will have a built-in farm-style laundry sink.

ELECTRICAL-

Includes complete electrical system with 400 amp electrical service. House is pre-wired for multiple telephone lines and TV outlets. House includes smoke alarms, carbon monoxide alarms, and complete security systems. Exterior system includes waterproof receptacles @ decks and porch, wall mounted lights at each exterior door and garage doors, recessed can lights at rear porch, and dropped fixture at the front porch.

HEATING & COOLING SYSTEMS-

Systems include state-of-the art, energy-efficient hydronic radiant floor heat in concrete slabs and hot water throughout the house with natural gas boiler. Upper floors to have high efficiency heat pump/ air-conditioning systems. Also includes snow melt system at front porch and driveway.

NATURAL GAS SYSTEM-

Includes a complete natural gas system with supply lines as required for furnaces, water heaters, gas starters, and gas line for grill on rear deck.

LANDSCAPING-

All areas around the house, which have been disturbed by construction will receive a final grading and will be hydro-seeded with lawn seed. A variety of native evergreens, including hemlock, rhododendron, and mountain laurel will be planted around the house.