



## Specifications & Description of Materials

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- 1. Introduction:** The text of this document, in conjunction with the attached plans, is intended to describe the significant details necessary for constructing a new single family home. The details written herein describe the Contractor's obligations and function as a compliment to the attached plans.

Products for which a specific manufacturer is not specified herein will be generally recognized brands as selected by the Contractor. Materials of equal or better quality may be utilized in place of materials specified herein at the sole discretion of the Contractor.

Installation of specific elements within the systems of the building may need to be modified, re-located, or otherwise altered from their originally specified (or unspecified) nature. These modifications or additions may include, but are not limited to utility entrance locations, venting locations, building additional chases to enclose mechanical systems, mechanical system access points, minor re-location or re-sizing of fixtures, ect.

The finished elevation of the land surrounding the building may be influenced specific elements in the building including, but not limited to, the number of steps (interior & exterior), deck and patio elevations, necessity of handrails, installation of window wells, the final exterior grade, necessity of culverts, drainage locations, landscaping elements, necessity of retaining walls, and the configuration of the driveway or parking area.

- 2. General Description & Approximate Square Footage:** The house plan is a single story home designed by Highlander Construction & Development to be built on a full partially finished and unfinished Lower Level. A set of plans are attached to these specifications. The plan includes (4) bedrooms, (3) full bathrooms, (1) ½ bathroom, and a full and half bath roughed in only in the unfinished Lower Level. The approximate square footage for the house is as follows:

Main Level	2,057 SQFT
Finished Lower Level	838 SQFT
Unfinished Lower Level	1,718 SQFT
Garage	505 SQFT
Front covered porch	55 SQFT
Screened Porch	144 SQFT
Upper Deck	264 SQFT
<u>Lower Patio</u>	<u>408 SQFT</u>
<b>Total</b>	<b>5,989 SQFT</b>

3. **Lot:** Improvements shall be constructed on the property located at Lot 11, Phase I, High Meadows in the City of Radford, Virginia. The list price of the lot without improvements is **\$46,800.00** but the lot shall be included in the total offering price.
  
4. **Professional Engineering & Surveying**
  - A. Engineering: Contractor to procure a site plan and retaining wall design from a licensed Engineer. The site plan shall be attached to these specifications.
  - B. Surveying: Contractor to procure a licensed Surveyor to locate the building, stake the foundation, and pin the corners of the footers. Neither a foundation survey nor final survey is included in the purchase price. ***Contractor recommends the purchaser contract a surveyor to perform a final survey of the lot once all construction is complete, and that the survey be recorded with the Deed to the property.***
  - C. Shrink / Swell Testing: If required, Contractor shall procure a shrink swell soil test from a certified inspector prior to the installation of footers.
  
5. **Site Development: Clearing & Excavation:** Contractor shall be responsible for the implementation of site work as outlined in the site plan.
  - A. As necessary, a track propelled loader shall be utilized to initially clear the site to allow the Surveyor to stake the corners of the lot and the building location.
  - B. Upon completion of the initial surveying, a track propelled loader or rubber tired backhoe shall be utilized to clear an area generally defined as 15' around the perimeter of the staked building location including the removal of all trees, shrubs, and brush. The building site shall then be excavated to the grade level required to dig footers.
  - C. The existing topsoil shall be stripped from the surface of the site and stored on site for re-application after final grading. Additional fill and top soil may be imported as Contractor deems necessary.
  
6. **Footings**
  - A. A rubber tired backhoe shall be utilized for the excavation of the footers and drainage trenches.
  - B. Depth: Footers shall be dug a minimum of 30" below the area's freeze line.
  - C. Size: Footers shall be dug a minimum of 24" wide and 8" deep.
  - D. Reinforcement: Footers to be reinforced with two runs of ½" #4 steel rebar, lapped a minimum of 18". Each run of steel rebar shall sit in steel foundation chairs which shall be spaced a minimum of every 6' so as to hold the steel rebar at least 2" up from the bottom of the footer.
  - E. Forming: All footers to be earth formed with bulkheads, steps, and special forms as needed.
  - F. Concrete: 3000 PSI. Note: the local building code only requires 2500 PSI concrete.
  - G. Note: If required, Contractor shall procure a shrink swell test on the soil prior to the digging of footers. If the soil is determined to be expansive, additional engineering to design and install proper footers may be required.

**7. Foundations**

- A. Type: Unfinished basement.
- B. Foundation walls: Engineered poured concrete walls reinforced with steel rebar installed per the attached plans. The concrete shall be a minimum of 3000 PSI.
- C. Foundation Vents: None.
- D. Crawl Space Vapor Barrier: 6 mil black plastic.
- E. Concrete Slab: *See #11 Interior Slabs.*
- F. Foundation Bolts: ½” x 10” bolts installed per code.
- G. Masonry Veneer: *See #16 Masonry Veneer.*
- H. Drain Tile & Filter Fabric: 4” black drain tile covered with clean 57 gravel and filter fabric per code.

**8. Radon Mitigation:** Standard piping for the removal of radon gas shall be installed in a location to be determined by the Contractor. The piping will be marked and capped off for future radon mitigation if necessary. Contractor is not responsible for the existence or removal of radon gas other than the installation of piping. Any other cost for labor and materials to test for and mitigate radon emissions shall be the sole responsibility of Purchasers.

**9. Water-proofing:** The perimeter of the foundation to grade shall be treated and protected with the patented “Tuff & Dry” type Waterproofing System. A Certificate of Fifteen-year Guarantee shall be provided to Purchasers upon completion of the building.

**10. Termite Protection:** The foundation square footage and perimeter shall be pre-treated for termites. A Certificate of Five-year Guarantee shall be provided to the Purchasers.

**11. Interior Slabs**

- A. Lower Level Slab
  - 1. Expansion Protection: Impregnated sheathing black expansion joint installed around the perimeter of the slab.
  - 2. Insulation Board: None.
  - 3. Gravel Sub-base: Clean #57 stone
  - 4. Vapor Barrier: 6 mil black plastic
  - 5. Control Joints: Screed key installed as needed.
  - 6. Reinforcement: Fiber in concrete.
  - 7. Concrete: 4000 PSI poured to an average depth of 4”.
  - 8. Add-mixtures: Accelerator added as needed during periods of sever cold weather.
  - 9. Color: Natural; no color additives.
  - 10. Finish: Smooth.
  - 11. Sealer: None.

12. Drainage: 4" standard floor drains installed in locations per the attached plans.
- B. Garage Slab – poured over a Metwood pan system
  1. Expansion Protection: Impregnated sheathing black expansion joint installed around the perimeter of the slab.
  2. Gravel Sub-base: Clean #57 stone
  3. Vapor Barrier: 6 mil black plastic
  4. Control Joints: Screed key installed as needed.
  5. Reinforcement: #4 rebar 2' on center.
  6. Concrete: 4000 PSI poured to an average depth of 4".
  7. Add-mixtures: Accelerator added as needed during periods of sever cold weather.
  8. Color: Natural; no color additives.
  9. Finish: Smooth.
  10. Sealer: None.
  11. Drainage: The garage floor shall be sloped to drain excess water to the exterior.

**12. Framing:** All framing per the attached plans and specified as follows:

- A. Exterior Walls
  1. Type: Wood frame #2 Spruce, Pine, or Fir. 2" x 4" and 2"x 6" studs per the attached plans are installed 16" on center.
  2. Sheathing: 7/16" solid OSB nailed 8" on center in the field and 6" on center along the edges per code.
  3. Building Wrap: All exterior wood walls wrapped and taped with Tyvek building wrap.
  4. Seam Sealer: Seam sealer shall be installed between the subfloor and bottom plate of all exterior walls on all floors.
- B. Chimneys
  1. Type: Wood frame #2 Spruce, Pine, or Fir. 2"x 6" studs per the attached plans are installed 16" on center.
  2. Sheathing: 7/16" solid OSB nailed 8" on center in the field and 6" on center along the edges per code.
  3. Building Wrap: All exterior wood walls wrapped and taped with Tyvek building wrap.
  4. Seam Sealer: Seam sealer shall be installed between the subfloor and bottom plate of all exterior walls on all floors.
- C. Interior Partitions: Studs: 2" x 4" Studs- Spruce, Pine, or Fir installed 16" on center, except plumbing walls which may be 2" x 6" Spruce, Pine, or Fir.
- D. Floor Framing
  1. Lower Level floor: Concrete slab, *see #11 Interior Slabs.*
  2. Main Level: 11-7/8" TJI's installed 2' on center per code. All bracing to meet local code. 3/4" sub-flooring applied with sub-floor adhesive, screws, and nails.
  3. Garage floor: Concrete slab, *see #11 Interior Slabs.*

- E. Sub-flooring (where applicable)
  - 1. Sub-flooring Materials overtop the floor joists: ¾" OSB Advantec type Sheathing Tongue & Groove, or equal product. Flooring is glued with sub-floor adhesive, nailed, and screwed.
  - 2. Additional sub-flooring Materials in tile flooring or wall areas: ½" x 3' x 5' Durock. Note: Durock is not required when tile is installed overtop of concrete slabs.
  - 3. Additional sub-flooring Materials in hardwood areas: 15 LB black felt paper.
- F. Ceiling Framing
  - 1. 1<sup>st</sup> Floor Ceiling Joists: Bottom cords of the engineered and manufactured roof trusses. All bracing to meet local code. In addition, the dining room and master bedroom shall be framed with Trey ceilings.
  - 2. Lower Level Floor Ceiling Joists: Bottom of the 1<sup>st</sup> floor-floor joist.
  - 3. Other: Ceiling heights are as follows:
    - a. Lower Level floor: Minimum 8' throughout, except areas where mechanicals / structural components may extend below the floor joist.
    - b. Main Level: 9' throughout except vaulted and trey ceiling areas shown on the attached plans.
- G. Roof Framing
  - 1. Trusses: Engineered and manufactured roof trusses constructed with SPF dimensional lumber installed per code. All bracing to meet local code.
  - 2. Roof Pitches: Main:8/12, Front Porch: 8/12, Screened Porch 8/12, and Garage:8/12
  - 3. Sheathing: Sheathing: 7/16" OSB, secured with hurricane clips and nailed 8" on center in the field and 6" on center along the edges per code.
- H. Air Sealing Measures
  - 1. All edges, seams, and breaks in the building wrap must be taped and sealed.
  - 2. All gaps in exterior wall sheathing sealed.
  - 3. An air barrier such as ¼ Luan or Foam Board (not poly) shall be installed behind all tub, tub-shower, fireplaces, and chases.
  - 4. All window and door rough openings sealed.
- I. Other
  - 1. Advanced framing techniques shall be implemented throughout including the use of 2 stud corners and T walls.
  - 2. Wall bracing per code as shown the attached plans.
  - 3. All lumber cutting shall be conducted in a designated and specified central cut area.
  - 4. No headers shall be installed over non-load bearing interior walls.
  - 5. All doors and windows shall be installed and flashed in accordance with the manufacturer's recommendations.

### **13. Insulation**

- A. Insulation installed per code which at minimum shall be as follows:
  - 1. Ceiling (vaulted): Where applicable, R38 paper faced fiberglass insulation.

2. Ceiling (non-vaulted): Fiberglass cube insulation blown to an average depth necessary to achieve an R Value of 38
  3. Between the Lower Level and the Main Level: None.
  4. Exterior Walls:
    - a. Framed Walls: Spray Cellulose blown to a thickness of a minimum R Value of 13
    - b. Concrete Foundation Walls: Minimum R13 paper faced fiberglass insulation.
    - c. Close Cell Spray Foam blown to a thickness of a minimum R Value of 19 blown behind the fireplace.
  5. Interior Walls:
    - a. R13 non-paper faced fiberglass insulation installed in the walls abutting finished and unfinished areas, the laundry room, and the bathroom walls.
    - b. Spray Cellulose blown to a thickness of a minimum R Value of 13 in the interior garage walls abutting to the interior walls of the house which have heated and cooled space.
  6. Bands: Close Cell Spray Foam blown to a thickness of a minimum R Value of 19
  7. Close Cell Spray Foam blown to a thickness of a minimum R Value of 19 blown in the vertical rise of the tray ceilings on the main level.
  8. Close Cell Spray Foam blown to a thickness of a minimum R Value of 19 blown in the ceiling of the Wine Cellar (under the front porch)
- B. Fire Caulking: All areas shall be fire caulked as required by code.
- C. Air Sealing Measures:
1. All penetrations through the top & bottom plates sealed.
  2. All penetrations through the insulated subfloor sealed.
  3. All shower and tub drains sealed.
  4. All cantilevered floors sealed above the supporting wall.
  5. All gaps in exterior wall sheathing sealed.
  6. All sheathing penetrations (excluding exterior light fixtures or receptacles) sealed.
  7. All penetrations through drywall in the attached garage sealed.
  8. All penetrations through the bands sealed.
  9. All penetrations through the insulated ceiling sealed.

#### **14. Permanent Roofing**

- A. Underlay: 30 LB black roof felt
- B. Shingles:
  1. Type: Class A, architectural 30-year fire rated shingles
  2. Brand & Manufacturer: Oakridge by Owens Corning; however Contractor reserves the right to change the brand & manufacturer of the shingles.
  3. Color: Onyx Black
- C. Flashing: Standard 14" wide aluminum flashing installed as needed.
- D. Other:

1. Ridge vent and gable vents installed as needed per the attached plans.
2. Ice & water shield installed in all valleys and along the roof edge.

**15. Fireplaces:**

- A. Location: Family Room only.
- B. Type: SDV500 42" Monessen natural gas fireplace unit installed. Contractor to select the brand and manufacturer.
- C. Amenities:
  1. Gas logs are preinstalled in the sealed fireplace unit.
  2. Variable speed air blower installed
  3. Unit has a Weathered Firebrick liner installed
  4. An on/off wall switch shall be installed near the fireplace location
- D. Installation: Installed flush and complemented with a stain grade wood mantel which matches the stain of the kitchen cabinetry.
- E. Surround: Natural Stacked Stone.

**16. Exterior Siding & Trim:** Installed in areas per the attached plans.

- A. Siding: None.
- B. Accent: 7" Northwoods Shake vinyl siding manufactured by Norandex installed in the front gables only. The color is Savannah Wicker.
- C. Soffit: White, vinyl vented soffit manufactured by Norandex
- D. Fascia: White, aluminum fascia manufactured by Norandex.
- E. Gable Vents: White, louvered vinyl gable vents manufactured by Alcoa installed in locations per the attached plans.
- F. Shutters: Paneled vinyl shutters manufactured by Mid American installed on the front windows only. The color is Black.
- G. Other: None.

**17. Masonry Veneer:**

- A. Location: Complete exterior – Per the attached plans.
- B. Brick:
  1. Type: Modular.
  2. Style: Mesa Verde
  3. Manufacturer: General Shale
  4. Sand: Yellow Masonry
  5. Mortar: Buff Type S
  6. Course Pattern: 1/2 Bond
  7. Joints: Cove
  8. Other
    - a. Soldier Course with centered concrete keystones installed over all front windows and the garage door.
    - b. Decorative Coins installed on all front corners of the house.
    - c. Brick installed on the retaining wall
    - d. (2) brick columns on the front porch

- e. (2) brick columns at the entrance to the driveway with concrete tops. One column shall have a mail box and paper box.

### **18. Gutters and Downspouts**

- A. Gutter material: 5" wide white seamless aluminum (.027) installed per contractor design.
- B. Downspout material: 2" X 3" white seamless aluminum (.027) installed per contractor design.
- C. Downspout connections: All downspouts shall be connected to buried 4" drain tile per the attached site plan.
- D. Other: No Leaf guard mesh system is included.

### **19. Windows**

- A. Type: Double Hung, except the windows over the tub in the master bathroom which shall be fixed picture windows.
- B. Brand: M&W Twin Seal with pre-installed brick ledge
- C. Material: Vinyl with wood extension jambs
- D. Sizes & Locations: Per attached plans
- E. Screens: Standard screens are included and installed for all operable windows.
- F. Other:
  - 1. All windows have grills between the glass panes
  - 2. All windows are insulated with Low E
  - 3. All windows shall have pre-installed white vinyl brick mold
  - 4. All windows shall have wood extension jambs.
  - 5. All windows are picture framed after installation with EC444 3-1/4" colonial casing.
  - 6. No storm windows included.

### **20. Skylights: None.**

### **21. Exterior Doors**

- A. Front Door: 36" LH fiberglass door with sidelight and transom manufactured by Thermatru. The door shall be constructed with mullion thick enough to provide for the installation of storm door and shall include a pre-installed dead bolt bore.
- B. Doors from the Great Room to the Deck: (2) 60" wide full view patio door with transoms and grills between the glass panes manufactured by Thermatru. Both panels operate.
- C. Door from Nook to Screened Porch: 32" wide LH full view patio door #SS108 with grills between the glass panes manufactured by Thermatru.
- D. Lower Level Doors in Unfinished Family Room: 2) 60" wide full view patio door with and grills between the glass panes manufactured by Thermatru. Both panels operate.
- E. Lower Level Door in Unfinished Flex Room: 32" wide full view patio door #SS108 with grills between the glass panes manufactured by Thermatru.

- F. Door from the Utility Room to the Garage: 36" wide RH steel insulated 6-panel door pre-drilled with a dead bolt bore manufactured by Thermatru.
- G. Door from the Garage to the Exterior: 36" wide LH steel insulated 6-panel door pre-drilled with a dead bolt bore manufactured by Thermatru.
- H. Garage Door: 16' wide by 8' tall white insulated garage doors manufactured by Stratford with a torsion spring lift, automatic opener, two remotes, and exterior access key pad. The door shall also include decorative glass inserts
- I. Storm Door: Full view "Signature Series" door with beveled glass manufactured by Larson installed.
- J. Exterior door hardware: "Soma Collection lever nickel entrance and deadbolt lock combinations manufactured by Better home Products installed on all exterior doors, except the front door which shall have a thumb latch lock installed. All exterior doors shall be keyed alike.

## **22. Lath and Plaster**

- A. Walls: ½" smooth drywall installed. All wall joints and nails shall be taped and all corners beaded.
- B. Ceilings: ½" smooth drywall installed. All joints and nails shall be taped and the ceiling shall have a knocked down textured finish.

## **23. Interior Doors & Hardware**

- A. Interior doors:
  - 1. Bedroom, Bathroom, & Laundry Interior Doors: 6 Semi Solid doors with finger jointed split jambs. Sizes and locations per the attached plans.
  - 2. Other Interior Doors: 6 Panel hollow core doors with finger jointed split jambs. Sizes and locations per the attached plans.
- B. Door trim: EC444 3-1/4" colonial casing, except Bi-fold doors and designated openings, which have colonial cased openings.
- C. Door finish: All interior doors are painted with one color of interior semi-gloss paint. In addition, all joints are caulked with standard interior, white, paint-able caulk.
- D. Interior door hardware: "Soma Collection" French nickel door hardware installed.
- E. Other: None.

## **24. Interior Trim & Details**

- A. Closet Shelving: Vinyl coated steel closet shelving installed per contractor's layout.
- B. Base Mold
  - 1. Areas of Installation: All finished rooms.
  - 2. Type: 5-1/4" MDF speed base
  - 3. Finish: Painted with one color of interior semi-gloss paint.
- C. Crown Mold with Inverted Base Cap:
  - 1. Areas of Installation: All finished rooms on the main level and the lower level.
  - 2. Type: 4-5/8" WM47 Crown and 1-3/8" WM163 Base Cap

3. Finish: Painted with one color of interior semi-gloss paint.
- D. Crown Mold (small)
1. Areas of Installation: Inside all tray ceilings
  2. Type: 3-5/8" WM49
  3. Finish: Painted with one color of interior semi-gloss paint.
- E. Chair Mold & Backer:
1. Areas of Installation: Dining Room
  2. Backer Type: 4-1/4" WM956
  3. Chair Type: 3-1/2" S2SL/WM297
  4. Finish: Painted with one color of interior semi-gloss paint.
- F. Shadow Boxing:
1. Areas of Installation: Dining Room, Front Entrance, and Stairway
  2. Type: Inverted 1-3/8" WM163 Base Cap
  3. Finish: Painted with one color of interior semi-gloss paint.
- G. Shoe Mold
1. Areas of Installation: All hardwood flooring areas
    - a. Type: Oak
    - b. Finish: 1 coat of natural semi-gloss polyurethane.
  2. Areas of Installation: All ceramic tile flooring areas
    - a. Type: Pine
    - b. Finish: Primed and painted with one color of interior semi-gloss paint.
- H. Fireplace Mantels:
1. Areas of Installation: Family Room
  2. Type: Stain grade mantel.
  3. Finish: Stained to match the kitchen cabinetry.
- I. Ceiling Medallions: Installed in the Nook & Dining Room.
- J. Plant Shelves: None.
- K. Access to attic storage: Attic Access Stairs (*see below*) located in the garage
- L. Book Cases / Built In Furniture:
1. Area of Installation: Great Room
    - a. Type: Built in bookcase
    - b. Materials: Stain grade wood.
    - c. Finish: Stained to match the kitchen cabinetry.
  2. Area of Installation: Hidden Entrance to Wine Cellar.
    - a. Type: Built in bookcase
    - b. Materials: Stain grade wood.
    - c. Finish: Stained to match the kitchen cabinetry.
    - d. Other: The center portion of the book case shall actually be a door which hides the Wine Cellar
- M. Other:
1. All knee walls, if any, are capped with 1"x 8" MDF then routed and trimmed with inverted base cap.
  2. The Storage Area in the Lower Level shall be framed with wood shelves
  3. The area underneath the front porch shall be finished into a Wine Cellar.

- a. All cabinetry and racks will be custom made and constructed with solid wood stained to match the kitchen cabinetry
- b. The breathing table shall be granite (style TBD)
- c. An outlet for a chiller appliance shall be installed

**25. Landings, Stairs, & Stair Parts:**

- A. Interior Stairs from the Main Level to the Lower Level
  1. Treads: Oak
  2. Risers: 1" x 8" MDF
  3. String sideboards: 1" x 12" MDF
  4. Handrail: L.J. Smith #6010 – stained to match the kitchen cabinetry
  5. Handrail Brackets: Brushed Nickel
  6. Balusters: L.J. Smith #5206 1-1/4" x 38"
- B. Attic Access Stairs: Standard Attic Access Stairs installed in the Garage.

**26. Interior Wall Coverings & Decorations**

- A. Painting:
  1. Interior Walls (not bath or kitchen): Primed and painted with one color of Promar 200 (or equal brand) flat interior paint. Promar 200 is a trademark paint product of Sherwin Williams. The color is Softer Tan.
  2. Bath & Kitchen Interior Walls: Primed and painted with one color of Duration (or equal brand) moisture resistant semi gloss interior paint. Duration is a trademark paint product of Sherwin Williams. The color is Softer Tan.
  3. Trim (doors, casing, ect.): Primed and painted with one color of Promar 200 semi-gloss interior paint. Promar 200 is a trademark paint product of Sherwin Williams. The color is White.
  4. Exterior: All designated areas (if applicable) shall be painted with one color of Promar 200 exterior semi-gloss paint. Promar 200 is a trademark paint product of Sherwin Williams. The color is White.
- B. Mini Blinds: None included.
- C. Other: The installation wall papering, or other finish decorating is not included.

**27. Cabinets & Interior Details:** Contractor shall install cabinetry & counter tops costing no less than \$19,500.00. The layout is per the attached plans.

- A. Kitchen Cabinetry: Seneca Ridge Raise Panel Tall Cabinets with a deep cherry finish (Sedona) manufactured by Merillat. Wall cabinets above the serving bar shall have glass doors
- B. Counter Tops: Granite, color and style TBD
- C. Bath Vanities: TBD
- D. Bath Tops: Cultured Marble; color and style TBD
- E. Laundry Cabinetry: TBD
- F. Wall or Special Tiling:
  1. Back-splashes: None
  2. Bath Walls: None.

3. Whirlpool Surround
  - a. Areas of installation: Master bath whirlpool tub
  - b. Courses: 3-5 per Contractor field design
  - c. Tile Material: 4-1/4" x 4-1/4" ceramic tile manufactured by DAL.
  - d. Color: White
  - e. Grout: White
  - f. Installation Pattern: Square

**28. Floor Coverings:**

- A. Hardwood Flooring:
  1. Areas of Installation: Foyer, Dining Room, Main Level Hallways, Great Room, Kitchen, Nook, 1/2 Bath, Master Bedroom and Bedroom #2.
  2. Type: 2-1/4" wide planks of #1 Common Red Oak
  3. Stain: None.
  4. Finish: TBD
- B. Carpet & Padding:
  1. Areas of Installation: Lower Bedrooms & Closets.
  2. Carpet Manufacturer: Shaw
  3. Carpet Brand / Style: Treasure II / Hang Time
  4. Carpet color: Natural
  5. Padding information: 6 LB density "Black Diamond" padding installed.
- C. Tile Flooring:
  3. Areas of Installation: Laundry Room, Lower Level Hallway, Wine Cellar, and all Full Bathrooms.
  4. Size / Type: 12"x12" ceramic tile
  5. Brand/Color: Capri Classic
  6. Manufacturer: Orleans
  7. Grout: Ivory by Keracolor
  8. Installation Pattern: Standard square layout.
  9. Marble thresholds: None.
- D. Vinyl Flooring: None.

**29. Plumbing & Bathrooms:** Plumbing types and locations per attached plan. In addition, the following plumbing items shall also be installed: a single ice maker connection, a single washing machine hook up, a garbage disposal, and two exterior hose bibs.

- A. Water supply: City of Radford. Contractor shall install 3/4" CTS water lines from the street connection to the house. Internal water lines are Pex.
- B. Sewage disposal: City of Radford. Contractor to install a pump station and storage tank with alarm system in the back yard which shall pump material to the street connection. Contractor shall install SDR35 sewer lines from the street to the pump station to the house. Internal sewer lines are Schedule 40.
- C. Sprinkling yard system: None.
- D. Internal fire sprinkling system: None.
- E. Floor drains: Installed in locations per the attached plans.

- F. Water Heater: Rinnai natural gas tank-less water heater. The water heater shall be located per the attached plans.
- G. Main Kitchen Sink: 32-1/4" x 18-1/2" under mount stainless steel sink installed. Brand and manufacturer TBD.
- H. Main Kitchen Sink Faucet: #7560SL Extensa single lever pull out faucet manufactured by Moen installed.
- I. Prep Sink & Faucet: TBD
- J. Laundry Tub: Contractor shall provide a standard laundry sink, leg set, and faucet to be installed per the attached plans.
- K. General information:
  - 1. Isolation valves installed at all plumbing fixtures
  - 2. Freeze proof exterior faucets installed at all exterior hose bib locations
- L. Master Bath:
  - 1. Sinks: One piece double bowl cultured marble top included in the Cabinetry Allowance.
  - 2. Sink Faucets: Two "Eva" style faucets by Moen installed. Faucet is nickel with supplies 4" on center.
  - 3. Toilet: Elongated white toilet installed. Contractor to select the brand and manufacturer of the toilet.
  - 4. Toilet Seat: Elongated white plastic seat installed. Contractor to select the brand and manufacturer of the toilet seat.
  - 5. Shower: 48" white fiberglass shower unit manufactured by Max-Aker installed.
  - 6. Shower Valve and Faucet:
    - a. Valve: Single lever, 4 port pressure balanced with sweat valve with integral stops, Moen #62320
    - b. Trim-out: "Eva" by Moen installed. The trim out is nickel with a single handle. The model number is #TL183.
  - 7. Shower Door: Nickel finish pivot shower door with obscure glass installed. Contractor to select the brand and manufacturer of the shower door.
  - 8. Whirlpool Tub: 72" x 36" white whirlpool tub installed manufactured by Max-Aker. The whirlpool tub shall be complemented with a maximum of 3 courses of 4-1/4" x 4-1/4" ceramic tile with 2" x 6" ceramic caps installed in a standard square pattern. Contractor to select the brand and manufacturer of the ceramic tile.
  - 9. Roman Tub Faucet & Trim: "Eva" Nickel wall mounted Wing Handle Roman Tub Faucet manufactured by Moen installed.
  - 10. Bath Hardware: "Soma Collection, series 8400" nickel bath hardware installed. Contractor shall determine the layout and sizes of all bath hardware.
  - 11. Handicap Bars: None.
  - 12. Bath Fan or Fan-Light or Heat-Fan-Light: A standard bath exhaust fan installed.

13. Mirrors: Standard ¼” thick mirrors with seamed edges installed centered over vanities. Mirrors shall be 40” in height and the same width as the vanity top.

M. ½ Bath

1. Sink: Decorative Pedestal Sink. Contractor to select the brand and manufacturer of the pedestal sink.
2. Sink Faucet: “Eva” style faucet by Moen installed. Faucet is nickel with supplies 4” on center.
3. Toilet: Elongated white toilet installed. Contractor to select the brand and manufacturer of the toilet.
4. Toilet Seat: Elongated white plastic seat installed. Contractor to select the brand and manufacturer of the toilet seat.
5. Tub / Shower: None.
6. Shower Valve & Trim:
  - a. Valve: N/A
  - b. Trim: N/A
7. Shower Door: None.
8. Bath Hardware: “Soma Collection, series 8400” nickel bath hardware installed. Contractor shall determine the layout and sizes of all bath hardware.
9. Handicap Bars: None.
10. Bath Fan or Fan-Light or Heat-Fan-Light: A standard bath exhaust fan installed.
11. Mirrors: None.

N. Main Guest Bath

1. Sink: One piece double bowl cultured marble included in the Cabinetry Allowance.
2. Sink Faucet: “Eva” style faucet by Moen installed. Faucet is nickel with supplies 4” on center.
3. Toilet: Elongated white toilet installed. Contractor to select the brand and manufacturer of the toilet.
4. Toilet Seat: Elongated white plastic seat installed. Contractor to select the brand and manufacturer of the toilet seat.
5. Tub / Shower: 60” RH white fiberglass tub-shower unit manufactured by Max-Aker installed.
6. Shower Valve & Trim:
  - a. Valve: Single lever, 4 port pressure balanced with sweat valve with integral stops, Moen #62320
  - b. Trim-out: “Eva” by Moen installed. The trim out is nickel with a single handle.
7. Shower Door: None included. A standard 60” non-adjustable shower rod shall be installed. Contractor to select the shower rod.
8. Bath Hardware: “Soma Collection, series 8400” nickel bath hardware installed. Contractor shall determine the layout and sizes of all bath hardware.

9. Handicap Bars: None.
10. Bath Fan or Fan-Light or Heat-Fan-Light: A standard bath exhaust fan installed.

Mirrors: Standard ¼” thick mirrors with seamed edges installed centered over vanities. Mirrors shall be 40” in height and the same width as the vanity top.

O. Lower Level Guest Bath:

1. Sink: One piece double bowl cultured marble included in the Cabinetry Allowance.
2. Sink Faucets: Two “Eva” style faucets by Moen installed. Faucet is nickel with supplies 4” on center.
3. Toilet: Elongated white toilet installed. Contractor to select the brand and manufacturer of the toilet.
4. Toilet Seat: Elongated white plastic seat installed. Contractor to select the brand and manufacturer of the toilet seat.
5. Tub / Shower: 60” RH white fiberglass tub-shower unit manufactured by Max-Aker installed.
6. Shower Valve & Trim:
  - c. Valve: Single lever, 4 port pressure balanced with sweat valve with integral stops, Moen #62320
  - d. Trim-out: “Eva” by Moen installed. The trim out is nickel with a single handle.
7. Shower Door: None included. A standard 60” non-adjustable shower rod shall be installed. Contractor to select the shower rod.
8. Bath Hardware: “Soma Collection, series 8400” nickel bath hardware installed. Contractor shall determine the layout and sizes of all bath hardware.
9. Handicap Bars: None.
10. Bath Fan or Fan-Light or Heat-Fan-Light: A standard bath exhaust fan installed.
11. Mirrors: Standard ¼” thick mirrors with seamed edges installed centered over vanities. Mirrors shall be 40” in height and the same width as the vanity top.

P. Lower Level Fixtures Bathrooms: **SEWER ROUGH IN ONLY FOR A FUTURE FULL AND A BAR SINK LOCATION.**

**30. Heating, Cooling, & Ventilation:**

- A. Description: Two Electric Furnaces with emergency natural gas back up systems and 13 Seer Electric Cooling Systems installed. The brand and manufacturer TBD. Cold air returns shall be installed per code. The systems shall be sized to comfortably accommodate the heating and cooling of all finished areas and the Lower Level system shall be sized large enough to heat and cool the unfinished areas if finished in the future. The Lower Level system shall have two zones – one for the finished areas and one for the unfinished areas. The HVAC system shall be code compliant.

- B. Thermostats: A programmable digital thermostat control shall be installed to operate the system.
- C. Propane Gas Stub outs in the following locations:
  - 1. Furnace locations
  - 2. 1<sup>st</sup> Floor Fireplace
  - 3. Lower Level Fireplace
  - 4. Dryer location
  - 5. Range location
  - 6. Water heater location
- D. Other: All bathrooms and the laundry room shall be vented to the exterior per code.

**31. Electrical Wiring & Service:** The Electrical System shall include the following:

- A. Service: 200 AMP underground service installed.
- B. Wiring: Standard per code
- C. Panel boards and circuits: 200 Amp panel board with a capacity of 40 circuits each installed. All required disconnects are included.
- D. Other general electrical information:
  - 1. Electrical Layout – see attached plans
  - 2. Smoke detectors installed per code.
  - 3. No carbon monoxide detectors included
  - 4. Exterior waterproof G.F.C.I. electrical outlets installed per code.
  - 5. G.F.C.I. outlets installed in all bathrooms and all other areas per code.
  - 6. Contractor shall provide a Basic Package with a basic video and voice module for installation during the electrical rough in. Contractor to install structural wiring from the Communication Port to a maximum of (7) RJ45 multi media jacks.
  - 7. Contractor shall install (5) Cat Five telephone only jack locations which shall all be “daisy chained” in one circuit.
  - 8. Contractor shall install a single door chime kit shall be installed with a door bell button at the front door only.

**32. Electrical Fixtures:** Contractor shall install electrical fixtures costing no less than \$1,750.00 including all interior and exterior electrical light fixtures, bulbs, door chime kits, ceiling fans, heat-light-fan or fan-light units, and smoke detectors. The electrical layout is TBD.

**33. Appliances:** Contractor shall install the following stainless steel appliances costing no less than \$3,500.00:

- Microwave
- Free Standing Range
- Range Hood vented to the exterior (not stainless steel)
- Dishwasher
- Wall Over

- Badger 5 ½ HP Disposal (unseen and not stainless steel)

### **34. Porches / Decks:**

- A. Covered Front Porch: Size per the attached plans. The front porch shall be formed out of the engineered poured foundation concrete walls and capped with a concrete slab over top a Metwood pan system.
1. Posts: 8” decorative brick columns installed.
  2. Porch Ceiling Soffitt: White, vinyl solid soffitt manufactured by Norandex-Reynolds installed.
- B. Rear Deck:
1. Framing: Treated wood per the attached plans.
  2. Posts: Treated 4x4.
  3. Railing & Balusters: Treated wood primed and painted per the attached plans.
  4. Decking Boards: Trex per the attached plans.
- C. Screen Porch: Size per the attached plans. The screen porch shall be constructed with treated lumber and include the following materials & specifications.
1. Framing: Treated wood per the attached plans.
  2. Posts: Treated 4x4.
  3. Railing & Balusters: Treated wood primed and painted per the attached plans.
  4. Decking Boards: Trex per the attached plans.
  5. Porch Ceiling Soffit: White, vinyl solid soffit manufactured by Norandex installed.
  6. Screen Material& System: Black vinyl screen installed with the base and cap system.

### **35. Sidewalks / Patios:**

- A. Sidewalks: 36” wide concrete sidewalks installed per the attached site plan. The sidewalks are constructed with the following:
1. Gravel Sub-base: Clean 57 stone.
  2. Control joints: The sidewalk is formed in 4’ sections with double edged cuts in between each section.
  3. Reinforcement: None.
  4. Concrete: 4000 PSI poured to an average depth of 4”.
  5. Add mixtures: Accelerator added as needed during periods of sever cold weather.
  6. Color: Natural; no color additives.
  7. Finish: Broom finish.
  8. Sealer: None.
  9. Drainage: The slab shall be sloped to drain excess water.
  10. Other: No brick pavers are included.
- B. Rear Patio: Size per the attached plans. The front porch shall be formed out of the engineered poured foundation concrete walls and capped with a concrete slab over top a Metwood pan system.

- 36. Driveway:** Concrete driveway to be installed per the attached engineered site plan.
- 37. Landscaping:** Contractor shall seed and straw a maximum of 25,000 square feet of the disturbed area surrounding job site only. Landscaping as determined and installed by Contractor.
- 38. Exterior Cleaning & Job Site Organization:** The job site shall be cleaned on a regular basis as needed. Upon completion of all work, all excess materials and tools shall be removed.
- 39. Interior Cleaning:** Upon completion of all work Contractor shall leave the dwelling “Broom” clean. **Please note, “Broom” clean does not mean sterile. Additional cleaning may be necessary depending on the Purchaser’s preferences.** Specifically, Contractor will ensure that the following items are completed:
- A. All trash and debris has been removed from the dwelling.
  - B. All hardwood flooring areas have been swept and dusted.
  - C. All casing and base mould have been dusted and all stray marks or dirt spots removed.
  - D. All stickers/decals and paint/plaster droppings have been removed from the windows. (This does not mean the windows are completely free from dust, grime, or streaks)
  - E. The window sills have been vacuumed.
  - F. All counter tops and bath vanity tops have been wiped down.
  - G. All toilets, tubs, and showers have been wiped down and are free of debris.
  - H. All electrical fixtures have been dusted.
  - I. All sidewalks, patios, porches, and decks have been pressure sprayed.
  - J. Lower Level areas and garages have been swept.
  - K. Mirrors have been wiped.
  - L. All carpets vacuumed.
  - M. All vinyl & tile floors swept and mopped.
- 40. Miscellaneous Information:**
- A. Contractor shall make any necessary and timely submittals to the Architectural Review Committee.