



# Building Permit Application

Howard County Maryland  
Department of Inspections, Licenses and Permits  
3430 Court House Drive  
Permits: 410-313-2455  
www.howardcountymd.gov

Date Received:

6/11/18

Permit No.:

B18002074

Building Address: 3715E Sofia Ct  
City: Glenwood State: MD Zip Code: 21738  
Suite/Apt. #: n/a SDP/WP/BA #:   
Census Tract: 604002 Subdivision: Vineyards @ Cathu Creek  
Section: n/a Area: Na Lot: 25  
Tax Map: 0021 Parcel: 0225 Grid: 0008  
Zoning: RC-DEO Map Coordinates:  Lot Size: 42448  
Existing Use: unimproved lot  
Proposed Use: single family home  
Estimated Construction Cost: \$ 957,000  
Description of Work: construction of SFD - 3 Bed  
3 bath/.5 bath/3 car garage/partial  
F/basement/covered deck  
Occupant/Tenant Name: n/a  
Was tenant space previously occupied? ☐ Yes ☒ No  
Contact Name:   
Address:   
City:  State:  Zip Code:   
Phone:  Fax:   
Email:

Property Owner's Name: John and Jean Thers  
Address: 15312 Phoebe Terrace  
City: Darnestown State: MD Zip Code: 20874  
Phone: 301 977 9225 Fax:   
Email: jothers@verizon.net

Applicant's Name & Mailing Address, (If other than stated herein)  
Applicant's Name: Tradition Home Builders  
Address: 15084 Bushy Park Rd  
City: Worabine State: MD Zip Code: 21797  
Phone: 410 489 6145 Fax: 410 489 6215  
Email: leafhomes@gmail.com

Contractor Company: Tradition Home Builders Inc  
Contact Person: Ann Leaf  
Address: 15084 Bushy Park Rd  
City: Worabine State: MD Zip Code: 21797  
License No.: 13345187 (MHBR#59)  
Phone: 410 489 6145 Fax: 410 489 6215  
Email: leafhomes@gmail.com

Engineer/Architect Company: Ronald Johnston  
Responsible Design Prof.: Ronald Johnston  
Address: 11407 Barley Field Way  
City: Marriottsville State: MD Zip Code: 21104  
Phone: 410 442 3667 Fax: 410 442 8033  
Email: ron@rjarchitect.com

| Commercial Building Characteristics                                 | Residential Building Characteristics                                                               |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Height:                                                             | <input checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse              |
| No. of stories:                                                     | Depth: <u>86'</u> Width: <u>85'8"</u>                                                              |
| Gross area, sq. ft./floor:                                          | 1 <sup>st</sup> floor: <u>86'</u> 2 <sup>nd</sup> floor: <u>85'8"</u>                              |
| Area of construction (sq. ft.):                                     | Basement: <u>57'</u> <u>85'8"</u> <u>partial</u>                                                   |
| Use group:                                                          | <input checked="" type="checkbox"/> Finished Basement <input type="checkbox"/> Unfinished Basement |
| Construction type:                                                  | <input type="checkbox"/> Crawl Space                                                               |
| <input checked="" type="checkbox"/> Reinforced Concrete             | <input type="checkbox"/> Slab on Grade                                                             |
| <input type="checkbox"/> Structural Steel                           | No. of Bedrooms: <u>3</u>                                                                          |
| <input type="checkbox"/> Masonry                                    | Multi-family Dwelling                                                                              |
| <input checked="" type="checkbox"/> Wood Frame                      | No. of efficiency units:                                                                           |
| <input type="checkbox"/> State Certified Modular                    | No. of 1 BR units:                                                                                 |
|                                                                     | No. of 2 BR units:                                                                                 |
|                                                                     | No. of 3 BR units:                                                                                 |
|                                                                     | Other Structure:                                                                                   |
|                                                                     | Dimensions:                                                                                        |
| > Roadside Tree Project Permit                                      | Footings: <u>concrete</u>                                                                          |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Roof: <u>asphalt</u>                                                                               |
| Roadside Tree Project Permit #                                      | <input type="checkbox"/> State Certified Modular                                                   |
|                                                                     | <input type="checkbox"/> Manufactured Home                                                         |

| Utilities                                                                               |
|-----------------------------------------------------------------------------------------|
| Electric: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No           |
| Gas: <u>propane</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Water Supply                                                                            |
| <input type="checkbox"/> Public                                                         |
| <input checked="" type="checkbox"/> Private                                             |
| Sewage Disposal                                                                         |
| <input type="checkbox"/> Public                                                         |
| <input checked="" type="checkbox"/> Private                                             |
| Heating System                                                                          |
| <input checked="" type="checkbox"/> Electric <input type="checkbox"/> Oil               |
| <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas               |
| <input type="checkbox"/> Other:                                                         |
| Sprinkler System:                                                                       |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                     |
| Grading Permit Number: <u>61-18-68</u>                                                  |
| Building Shell Permit Number: <u>G180001144</u>                                         |

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: Ann M. Leaf  
Email Address: leafhomes@gmail.com  
Title/Company: Tradition Home Builders, Inc

Print Name: Ann M. Leaf  
Date: 6-11-18

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

\*\*PLEASE WRITE NEATLY & LEGIBLY\*\*

FOR OFFICE USE ONLY

| AGENCY             | DATE           | SIGNATURE OF APPROVAL |
|--------------------|----------------|-----------------------|
| State Highways     |                |                       |
| Building Officials |                |                       |
| PSZA (Zoning)      |                |                       |
| PSZA (Engineering) |                |                       |
| Health             | <u>6/20/18</u> | <u>R. Bricker</u>     |

Is Sediment Control approval required for Issuance? ☒ Yes ☐ No  
☐ CONTINGENCY CONSTRUCTION START

| DPZ SETBACK INFORMATION                                                               |
|---------------------------------------------------------------------------------------|
| Front:                                                                                |
| Rear:                                                                                 |
| Side:                                                                                 |
| Side St.:                                                                             |
| All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No    |
| Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No           |
| Lot Coverage for New Town Zone:                                                       |
| SDP/Red-line approval date:                                                           |

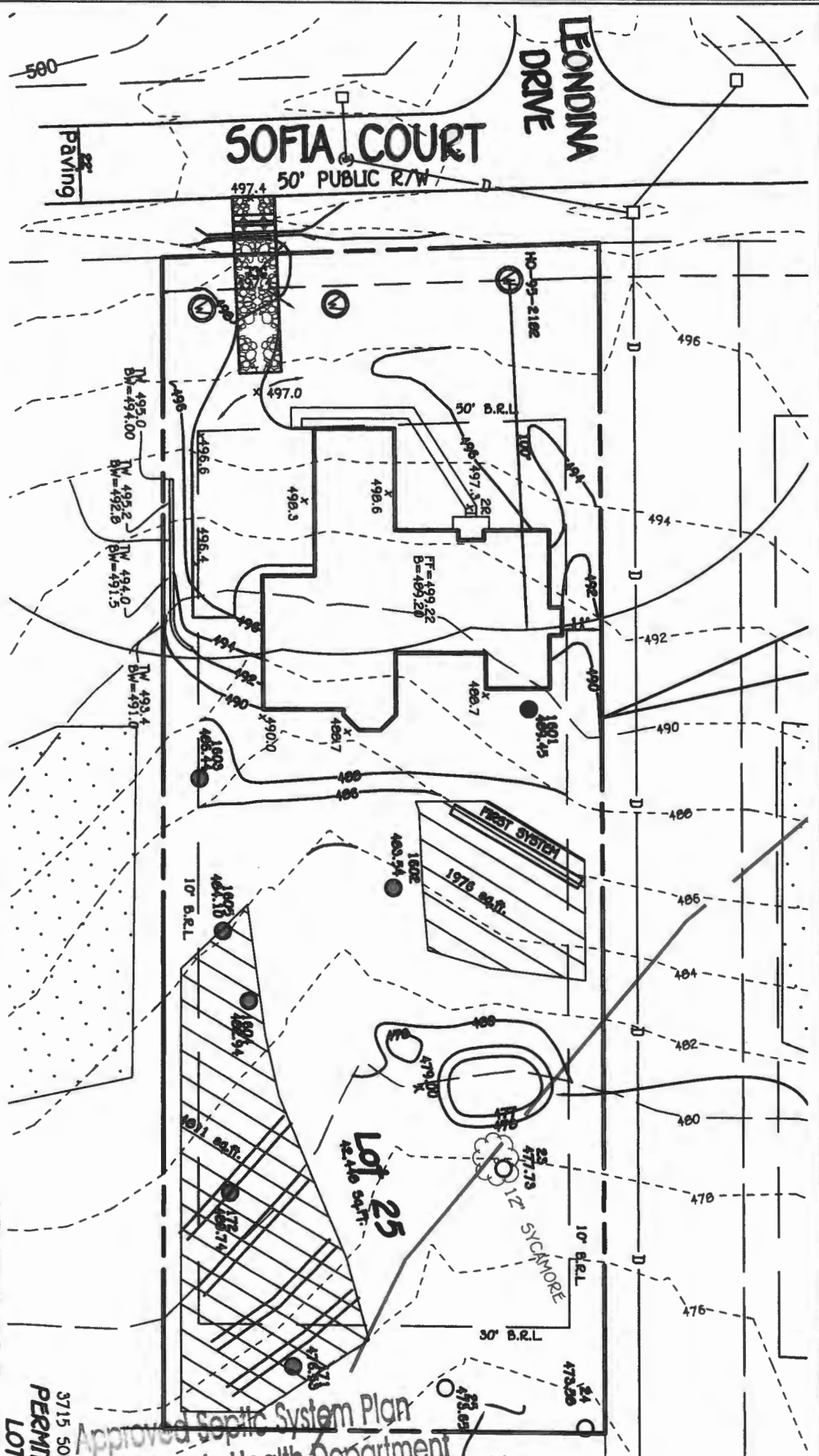
| Filing Fee     | \$            |
|----------------|---------------|
| Permit Fee     | \$            |
| Tech Fee       | \$            |
| Excise Tax     | \$            |
| PSFS           | \$            |
| Guaranty Fund  | \$            |
| Add'l per Fee  | \$            |
| Total Fees     | \$            |
| Sub-Total Paid | \$            |
| Balance Due    | \$            |
| Check          | # <u>8751</u> |

Distribution of Copies: White: Building Officials Green: PSZA, Zoning Yellow: PSZA, Engineering Pink: Health Gold: SHA

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 CALVERT CITY, MARYLAND 21042  
 (410) 461-2895

**BUILDER**  
 JOHN AND JOAN THEIS  
 15312 PAREV TERRACE  
 DARNESTOWN MD 20874  
 PH 301-908-5315

**VINEYARDS AT CATTAIL CREEK**  
 ZONED: RC-DEO TAX MAP NO.: 21  
 PARCEL NO.: 225 GRID NO.: 8  
 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 30'  
 DATE: JUNE 8, 2018



3715 SOFIA COURT  
 PERMIT PLAN  
 LOT 25

Approved Septic System Plan  
 Howard County Health Department  
 3-bedroom SFD approved  
 B1800 2024

*R. Buckles*  
 Signature  
 3715 E Sofia Ct.  
 Date 6/26/2018

Plot # 14835

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**Maura J. Rossman, M.D., Health Officer****MEMORANDUM**

**TO:** *Ann Leaf, Tradition Home Builders, Inc*

**FROM:** *Robert Bricker, REHS/RS, L.E.H.S.*  
Well & Septic Program

**RE:** *3715 E.Sofia Court* Potential Basement Bedroom

**DATE:** 6/25/2018

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I have reviewed the floor plans in support of Building Permit **B18002074** for a new home at **3715 E.Sofia Court** and noted that there is a rough-in for a full bathroom in the partially finished basement. Please note that this makes it very likely for one or more rooms to be considered bedrooms upon conversion of additional area in the basement to finished living space.

For reference, the following is the bedroom definition in Howard County Code Section 3.801(b):

- (1) Except as provided in paragraph (2) of this subsection, a bedroom is any space in the conditioned area of a dwelling unit or accessory structure that:
  - (i) Is 90 square feet or greater in size;
  - (ii) May be used as a private sleeping area; and
  - (iii) Has at least one window and one interior door.
- (2) If a home office, library, or similar room is proposed, it may not be a bedroom if there is no closet; and
  - (i) The room contains permanently built-in bookcases around the perimeter of the room, desks, and other features that encumber the room;
  - (ii) A minimum 4 foot-wide opening, without doors, into another room;
  - (iii) A half wall (4 foot maximum height) between the room and another room; or
  - (iv) The room is a first floor room or basement area that does not have direct access to full bathrooms or "roughed in" plumbing that would provide direct access to future full bathroom facilities.

The Health Department strongly recommends sizing the onsite sewage disposal system at least one bedroom larger than the existing **three (3)** bedroom design to accommodate a future finished basement. If you choose to only size for the existing design, any future building permit for a finished basement may be placed on hold until the septic system is upgraded to accommodate the proposed number of bedrooms. This memo will be retained in the Health Department file for future reference.

RB

Copy: John and Joan Theis, owners  
file

B18002074

HEALTH DEPT



Front Elevation

SCALE: 1/4" = 1'-0"

## NOTES

### 1.0 GENERAL

1.01 THE BUILDER SHALL BE RESPONSIBLE AND LIABLE FOR FULL COMPLIANCE WITH ALL APPLICABLE BUILDING CODES, ORDINANCES, REGULATIONS AND AMENDMENTS, AND ALL OTHER AUTHORITY HAVING JURISDICTION, WHETHER OR NOT SUCH CODES AND REQUIREMENTS ARE EXPLICITLY DOCUMENTED IN THESE DRAWINGS. CONSTRUCTION SHALL COMPLY WITH THE INTERPRETATIONS OF THE LOCAL BUILDING OFFICIAL. IF THE INTERPRETATION OF THE LOCAL BUILDING OFFICIAL IS AT VARIANCE WITH THESE PLANS OR SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY. USE OF THESE DRAWINGS TO OBTAIN A BUILDING PERMIT OR TO CONSTRUCT THE STRUCTURE DOCUMENTED HEREIN SHALL CONSTITUTE ACCEPTANCE OF THESE CONDITIONS BY THE BUILDER.

1.02 IN THE EVENT OF A DISCREPANCY BETWEEN THE ARCHITECTURAL PLANS OR SPECIFICATIONS AND THE STRUCTURAL DRAWINGS, THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE.

### 1.03 DESIGN LOADS

| TYPE               | LIVE LOAD (PSF) | DEAD LOAD (PSF) |
|--------------------|-----------------|-----------------|
| ROOF               | 30              | 20              |
| SLEEPING ROOMS     | 30              | 10              |
| OTHER LIVING AREAS | 40              | 10              |
| GARAGE FLOORS      | 50              | 50              |
| DECKS              | 40              | 10              |
| EXTERIOR BALCONIES | 60              | 15              |

2.01 SITE WORK IS NOT ADDRESSED IN THESE DOCUMENTS. 2000 PSF SOIL BEARING CAPACITY ASSUMED.

### 3.0 CONCRETE/FOUNDATIONS

3.01 ALL REINFORCED CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE AC 318, CURRENT EDITION. ALL PLAIN CONCRETE SHALL CONFORM TO AC 318.1 AND AC 308.9 (WIDER TO RESIDENTIAL). CAST-IN-PLACE CONCRETE CONSTRUCTION.

3.02 MINIMUM SPECIFIED COMPRESSIVE STRENGTH @ 28 DAYS

| LOCATION/USE                                                                                        | CONCRETE | EX (PSI) |
|-----------------------------------------------------------------------------------------------------|----------|----------|
| BASEMENT WALLS AND FOUNDATIONS NOT EXPOSED TO WEATHER                                               | 2500     |          |
| BASEMENT SLABS AND INTERIOR SLABS ON GRADE                                                          | 2500     |          |
| BASEMENT WALLS, EXTERIOR FOUNDATION WALLS AND OTHER WORK EXPOSED TO WEATHER                         | 3000     |          |
| DRIVEWAYS, CURBS, WALKS, PATIOS, PORCHES, STEPS/STAIRS AND UNHEATED GARAGE SLABS EXPOSED TO WEATHER | 3500     |          |

3.03 THICKNESS AND REINFORCING OF CONCRETE FOUNDATION WALLS SHALL CONFORM TO THE INTERNATIONAL RESIDENTIAL CODE, CURRENT EDITION, TABLE R401.2 (1) (4), OR WITH SEALED STRUCTURAL DRAWINGS SPECIFIC TO THE SITE SOIL AND CLIMATE CONDITIONS.

### 4.0 MASONRY

4.01 ALL MASONRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE BIA AND NOMA SPECIFICATION FOR CONCRETE MASONRY CONSTRUCTION.

4.02 BRICK VENEER WALLS SHALL HAVE NON-CORROSION METAL TIES AT MINIMUM 16" O.C., VERTICALLY AND HORIZONTALLY, AND WEAP HOLES AT 34" O.C. AT BASE FLASHING AND CAVITY INTERRUPTIONS.

### 5.0 METALS

5.01 FOUNDATION ANCHOR BOLTS SHALL BE PROVIDED AT MAXIMUM 8'-0" O.C. AND 12" FROM THE END OF EACH PLATE SECTION, WITH MINIMUM TWO (2) ANCHORS PER SECTION OF PLATE. ANCHOR STRAPS SPACED TO ACHIEVE EQUIVALENT CAPACITY MAY BE SUBSTITUTED FOR ANCHOR BOLTS.

5.02 ALL METAL ANCHORS, FASTENERS, HANGERS, ETC., SHALL BE GALVANIZED. ALL STRUCTURAL STEEL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A 992 WITH MINIMUM STRENGTH  $F_y = 50$  KSI. ALL STRUCTURAL STEEL CHANNELS, ANGLES, ROGS AND BAR STOCK SHALL CONFORM TO ASTM A 36 WITH MINIMUM STRENGTH  $F_y = 36$  KSI.

5.03 ADJUSTABLE STEEL COLUMNS SHALL BE MINIMUM 1" GAUGE, ASTM A 513 OR BETTER, AND SHALL MEET OR EXCEED AS PUBLISHED ALLOWABLE LOAD CAPACITY. STEEL PIPE COLUMNS SHALL CONFORM TO ASTM A 53 GRADE B WITH MINIMUM STRENGTH  $F_y = 35$  KSI. COLUMNS SHALL HAVE MINIMUM 18" X 18" BEARING PLATE. SCREW JACK SHALL BE ENCASED IN CONCRETE OR TACK WELDED AFTER INSTALLATION.

### 6.0 WOOD

6.01 ALL LUMBER AND ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE, AND ALL EXPOSED EXTERIOR LUMBER, SHALL BE PRESSURE TREATED TO MEET AWP standards.

6.02 MOISTURE CONTENT OF ALL LUMBER SHALL NOT EXCEED 19%.

6.03 WOOD BEAMS, JOISTS, HEADERS AND RAFTERS SHALL BE MINIMUM S-P-F RUD OR EQUAL, UNLESS OTHERWISE NOTED.

6.04 LVL MEMBERS SHALL BE 1 1/2" WIDE, DEPTH PER PLANS, GANGED PER MANUFACTURER'S SPECIFICATIONS, WITH THE FOLLOWING MINIMUM PROPERTIES:  $F_b = 2,800$  PSI,  $F_c = 170$  PSI,  $F_v = 285$  PSI,  $E = 1,900,000$  PSI.

6.05 PSL MEMBERS SHALL BE SIZED PER PLANS WITH THE FOLLOWING MINIMUM PROPERTIES:  $F_b = 2,800$  PSI,  $F_c = 170$  PSI,  $F_v = 285$  PSI,  $E = 2,000,000$  PSI.

6.06 PREFABRICATED FLOOR JOISTS OR FLOOR TRUSSES SHALL BE DESIGNED TO CARRY ALL IMPOSED LIVE AND DEAD LOADS WITH THE LIVE LOAD DEFLECTION NOT TO EXCEED L/400. ALL LAMINATED BEAMS AND BUILT-UP JOISTS TO BE DESIGNED/VERIFIED BY MFR TYPICAL THROUGHOUT. THE MANUFACTURER SHALL ALSO PROVIDE ALL DRAWINGS REQUIRED FOR PERMIT AND ERECTION PURPOSES, BORED AND SEALED IF REQUIRED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE JOB IS TO BE BUILT.

6.07 PRE-ENGINEERED TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH TRP RECOMMENDATIONS TO CARRY ALL IMPOSED LIVE AND DEAD LOADS. THE MANUFACTURER SHALL SUPPLY ALL REQUIRED HANGERS, HOLD-DOWN STRAPS, SHEAR PANELS AND OTHER REQUIRED COMPONENTS. THE MANUFACTURER SHALL ALSO PROVIDE ALL DRAWINGS REQUIRED FOR PERMIT AND ERECTION PURPOSES, BORED AND SEALED IF REQUIRED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE JOB IS TO BE BUILT.

6.08 JOISTS SHALL BE DOUBLED UNDER PARALLEL WALLS THAT EXCEED ONE-THIRD THE JOIST LENGTH. JOISTS SHALL BE SPACED CLOSER UNDER BATH TUBS, CERAMIC OR MARBLE FLOORS, POTENTIAL WATER REGS, AND SHALL ANTICIPATED LOADING CONDITIONS. JOISTS SHALL NOT BE CUT, NOTCHED OR DIMLED EXCEPT AS PERMITTED BY IRC 2015 R602.9 (1) OR OTHER APPLICABLE CODE.

6.09 HEADERS OVER FRAMED OPENINGS IN BEARING WALLS SHALL BE MINIMUM 2" X 10" UNLESS OTHERWISE NOTED. ON DRAWINGS, BUT SHALL IN NO EVENT BE LESS THAN SPECIFIED IN IRC 2015 TABLE R602.7 OR OTHER APPLICABLE CODE.

### 7.0 THERMAL AND MOISTURE PROTECTION

7.01 3/4" X 3/8" MIN COMPRESSIBLE SILL SEAL SHALL BE PROVIDED BENEATH ALL EXTERIOR SILL PLATES.

7.02 PROVIDE APPROVED CORROSION FLASHING AT FLASHING AT THE INTERSECTION OF MASONRY AND WOOD FRAME CONSTRUCTION, OVER PROJECTING TRIM, WHERE DECKS, PORCHES, AND THE LINE ARE ATTACHED TO WOOD FRAME CONSTRUCTION, AT ROOF TO WALL AND ROOF TO CHIMNEY INTERSECTIONS, IN ROOF VALLEYS, AT ALL ROOF PENETRATIONS, AT WALL OPENINGS, AND AT ALL CAVITY INTERRUPTIONS AT MANICAP VENEER.

7.03 PROVIDE EXTERIOR FINISHES AS SHOWN ON DRAWINGS. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS OVER APPROVED WATERWEATHER RESISTANT BARRIER.

7.04 PROVIDE SOFFIT VENTS AND RIDGE VENTS AS SHOWN ON THE DRAWINGS, AND SUPPLEMENTAL ROOF VENTS IF AS REQUIRED TO MAINTAIN MINIMUM 1000 FREE VENTILATION FOR HORIZONTAL PROJECTING ROOF AREA. INSTALL PLASTIC OR CORROSION BARRIERS IN EACH TRUSS AFTER BAY TO MAINTAIN FREE AIR FLOW. ALL REVERSE GABLES SHALL BE OPEN TO MAIN ROOF ATTIC TO ALLOW FREE AIR FLOW.

THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING HVAC UNITS IN FULL COMPLIANCE WITH IRC 2015 M401.1.

### ICC 2015 ENERGY CODE COMPLIANCE REQUIREMENTS

THE BUILDING SHALL CONFORM TO THE FOLLOWING MANDATORY REQUIREMENTS PER THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE:

| COMPLIANCE CERTIFICATE                                     | A PERMANENT CERTIFICATE APPROVED BY THE LOCAL JURISDICTION DESCRIBING THE R-VALUES, U-FACTORS, AND SHGC OF THE BUILDING COMPONENTS AND BUILDING AIR LEAKAGE TEST RESULTS SHALL BE AFFIXED TO A WALL ABOVE THE FURNACE, IN A UTILITY ROOM, OR ANOTHER LOCATION APPROVED BY THE LOCAL JURISDICTION. PER ICC R403.1 (IRC N1103.14).                                                                                                                                                                                                                      |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AIR LEAKAGE                                                | ALL NEW CONSTRUCTION BUILDINGS SHALL BE CONSTRUCTED TO LIMIT THE THERMAL ENVELOPE AIR LEAKAGE TO 3 AIR CHANGES PER HOUR AT 0.75 PASCALS (0.015 PSI) PRESSURE AND TESTED VIA A BLOWER DOOR TEST PER ICC R403.4 (IRC N1103.4).                                                                                                                                                                                                                                                                                                                          |
| MAXIMUM PENETRATION U-FACTOR AND SHGC                      | THE MAXIMUM U-FACTOR ALLOWED USING EITHER THE TOTAL UA ALTERNATIVE METHOD PER ICC R403.1 (IRC N1103.1) OR THE SIMULATED PERFORMANCE ALTERNATIVE PER ICC R403.4 (IRC N1103.4) SHALL BE 0.45 FOR VERTICAL FENESTRATION AND 0.75 FOR SKYLIGHTS PER ICC R403.5 (IRC N1103.5).                                                                                                                                                                                                                                                                             |
| HVAC CONTROLS                                              | EACH HEATING AND COOLING SYSTEM SHALL HAVE AT LEAST ONE THERMOSTAT PER ICC R403.1 (IRC N1103.1). THE THERMOSTAT CONTROLLING THE PRIMARY HEATING AND COOLING SYSTEM SHALL BE A PROGRAMMABLE THERMOSTAT PER ICC R403.1 (IRC N1103.1).                                                                                                                                                                                                                                                                                                                   |
| HEAT PUMP SUPPLEMENTARY HEAT                               | HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEAT SHALL HAVE CONTROLS THAT, EXCEPT DURING DEFROST, PREVENT SUPPLEMENTARY HEAT FROM OPERATING WHEN THE HEAT PUMP COMPRESSOR CAN MEET THE HEATING LOAD PER ICC R403.1 (IRC N1103.1).                                                                                                                                                                                                                                                                                                               |
| DUCT SEALING                                               | ALL DUCTS, AIR HANDLERS, AND FILTER BOARDS SHALL BE SEALED PER ICC M401.4.1. DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER A ROOM-AIR OR PORT-ORSTRUCTION TEST PER ICC R403.3 (IRC N1103.3) UNLESS DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.                                                                                                                                                                                                                                                                     |
| BUILDING CAVITIES AS DUCTS OR FLEUMS                       | BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR FLEUMS PER ICC R403.3.5 (IRC N1103.3.5).                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| MECHANICAL SYSTEM PIPING INSULATION                        | MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105°F OR BELOW 55°F SHALL BE INSULATED TO R-3 MINIMUM PER ICC R403.4 (IRC N1103.4). PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DEGRADATION AND DELAY PER ICC R403.4.1 (IRC N1103.4.1).                                                                                                                                                                                                                                                                                    |
| CIRCULATING HOT WATER SYSTEMS                              | CIRCULATING HOT WATER SYSTEMS SHALL BE PROVIDED WITH AN AUTOMATIC, OR MANUALLY ACCESSIBLE MANUAL SWITCH TO TURN OFF THE CIRCULATING PUMP WHEN THE SYSTEM IS NOT IN USE PER ICC R403.5.1 (IRC N1103.5.1).                                                                                                                                                                                                                                                                                                                                              |
| MECHANICAL VENTILATION                                     | THE BUILDING SHALL BE PROVIDED WITH VENTILATION PER IRC M103 OR OTHER APPROVED MEANS OF VENTILATION PER ICC R403.4 (IRC N1103.4). WHOLE-HOUSE VENTILATION FANS SHALL MEET EFFICIENCY STANDARDS PER IECC TABLE R403.6.1 (IRC TABLE N1103.6.1).                                                                                                                                                                                                                                                                                                         |
| EQUIPMENT SIZING                                           | HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED ACCORDANCE WITH ACCA MANUAL S, OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODS PER ICC R403.7 (IRC N1103.7).                                                                                                                                                                                                                                                                                                               |
| SYSTEMS SERVING MULTIPLE DWELLING UNITS                    | SYSTEMS SERVING MULTIPLE DWELLING UNITS SHALL CONFORM TO IECC SECTIONS C403 AND C404.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SNOW MELT SYSTEMS CONTROLS                                 | SNOW AND ICE MELT SYSTEMS SUPPLIED THROUGH ENERGY SERVICE TO THE BUILDING SHALL INCLUDE AUTOMATIC CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE AMBIENT TEMPERATURE IS ABOVE 50°F AND NO PRECIPITATION IS FALLING, AND AUTOMATIC OR MANUAL CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE OUTDOOR TEMPERATURE RISES ABOVE 40°F PER ICC R403.9 (IRC N1103.9).                                                                                                                                                                             |
| POOLS AND IN-GROUND SPA HEATERS PERMANENTLY INSTALLED SPAS | POOLS AND IN-GROUND SPA HEATERS SHALL HAVE AN ACCESSIBLE ON/OFF SWITCH MOUNTED ON THE OUTSIDE OF THE HEATER THAT ALLOWS SHUT-OFF WITHOUT AFFECTING THE THERMOSTAT SETTING PER ICC R403.10.2 (IRC N1103.10.2). GAS-FIRED HEATERS SHALL NOT HAVE CONSTANT BURNING PILOT LIGHTS. HEATERS SHALL HAVE TIME SWITCHES OR OTHER CONTROL METHODS TO AUTOMATICALLY TURN ON AND OFF PER A PRESET SCHEDULE PER ICC R403.10.3 (IRC N1103.10.3). HEATED POOLS AND IN-GROUND SPAS SHALL BE PROVIDED WITH A VAPOR RETARDANT COVER PER ICC R403.10.4 (IRC N1103.10.4). |
| LIGHTING EQUIPMENT                                         | A MINIMUM OF 75% OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS OR A MINIMUM OF 75% OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL CONTAIN ONLY HIGH-EFFICACY LAMPS PER ICC R404.1 (IRC N1104.1).                                                                                                                                                                                                                                                                                                         |
| FUEL GAS LIGHTING EQUIPMENT                                | FUEL GAS SYSTEMS SHALL NOT HAVE CONTINUOUSLY BURNING PILOT LIGHT SYSTEMS PER ICC R404.1.1 (IRC N1104.1.1).                                                                                                                                                                                                                                                                                                                                                                                                                                            |

THE BUILDING SHALL ALSO CONFORM TO THE FOLLOWING:

### 1. PRESCRIPTIVE

THE BUILDING CONFORMS TO THE PRESCRIPTIVE REQUIREMENTS DETAILED IN THE CHART BELOW PER IECC TABLE 1.2.4 R402.1.3 (IRC N1102.1.3 & N1102.1.3). EQUIVALENT U-FACTORS MAY BE SUBSTITUTED FOR REQUIRED R-VALUES PER IECC R402.1.4 (IRC N1102.1.4). THE BUILDING SHALL ALSO CONFORM TO THE DETAILED REQUIREMENTS OF IECC R402.2 (IRC N1102.2).

| COMPONENT                    | REQUIRED VALUE                                                                                       |
|------------------------------|------------------------------------------------------------------------------------------------------|
| CEILING/ROOF                 | R-40 (UNCOMPRESSED OVER WALL TOP PLATE AT EAVES) OR R-38 (UNCOMPRESSED OVER WALL TOP PLATE AT EAVES) |
| WALLS                        | R-20 CAVITY OR R-13 CAVITY PLUS R-5 CONTINUOUS                                                       |
| BASEMENT WALLS               | R-10 CONTINUOUS OR R-13 CAVITY                                                                       |
| SLAB                         | R-10, 2" DEPTH                                                                                       |
| CRAWL SPACE WALLS            | R-10 CONTINUOUS OR R-13 CAVITY                                                                       |
| FLOORS OVER UNFINISHED SPACE | R-19                                                                                                 |
| DOOTS OUTSIDE                | R-5 FOR SUPPLY DUCTS IN ATTICS                                                                       |
| CONDITIONED SPACE            | R-6 FOR ALL OTHER DUCTS                                                                              |
| HOT WATER PIPES              | R-3 UNLESS OTHERWISE ALLOWED BY IECC R403.5.3 (IRC N1103.5.3)                                        |
| FENESTRATION                 | U-FACTOR ≤ 0.35 MAX.; SHGC ≤ 0.40 MAX.                                                               |
| SKYLIGHTS                    | U-FACTOR ≤ 0.35 MAX.; SHGC ≤ 0.40 MAX.                                                               |

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RONALD JOHNSTON AND ASSOCIATES, ARCHITECTS

11407 BARLEY FIELD WAY  
MARRIOTTSVILLE, MD 21104

• 410-442-3667

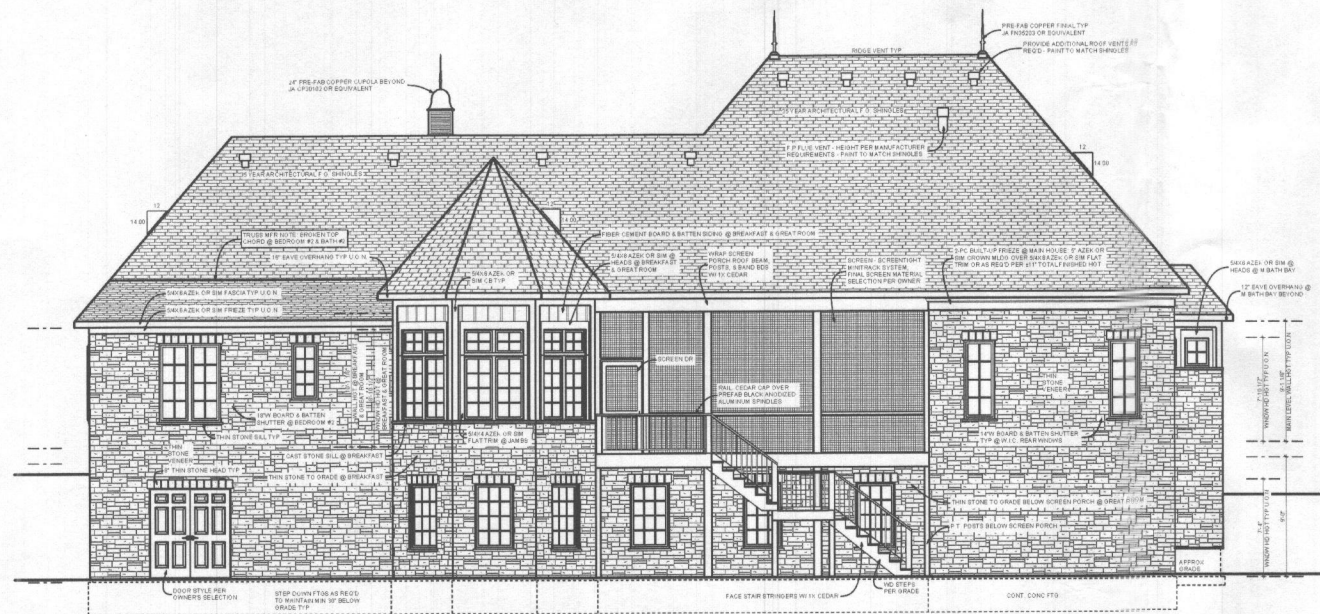
PROFESSIONAL CERTIFICATION

CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.  
DATE: 05/29/2018  
SIGNATURE: [Signature]

The Theis Residence

Permit Set

REVISIONS  
DATE: 05/29/2018  
SHEET NO: A-1



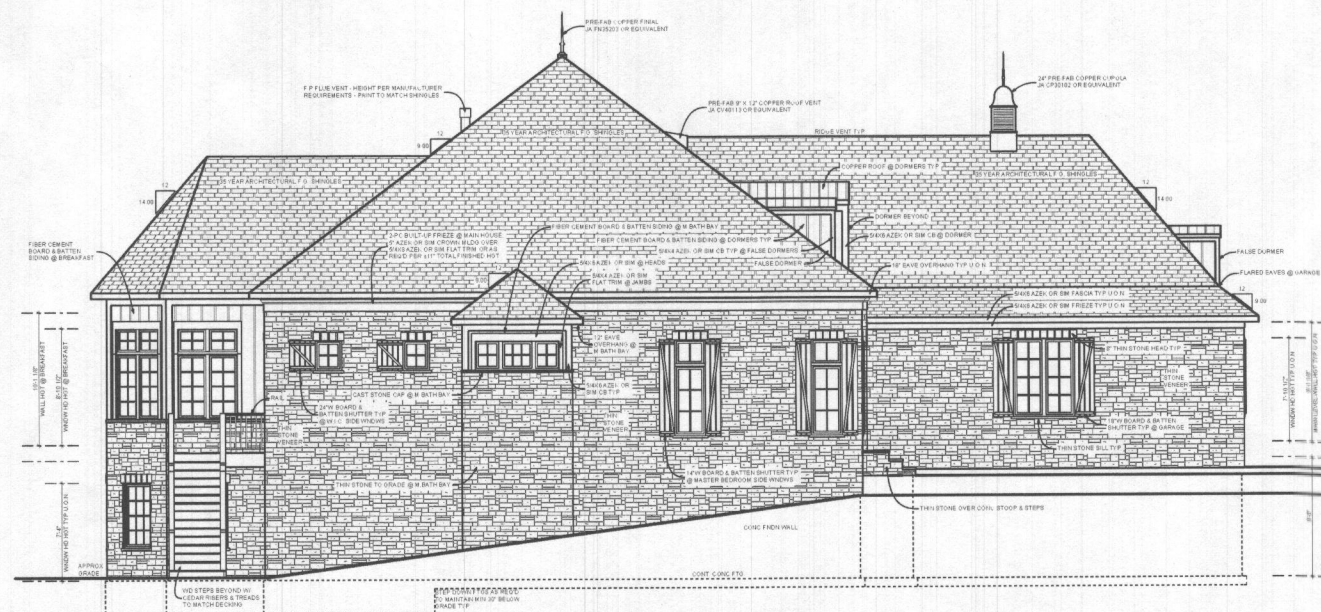
Rear Elevation

SCALE: 3/16" = 1'-0"



Right Elevation

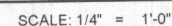
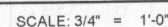
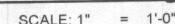
SCALE: 3/16" = 1'-0"



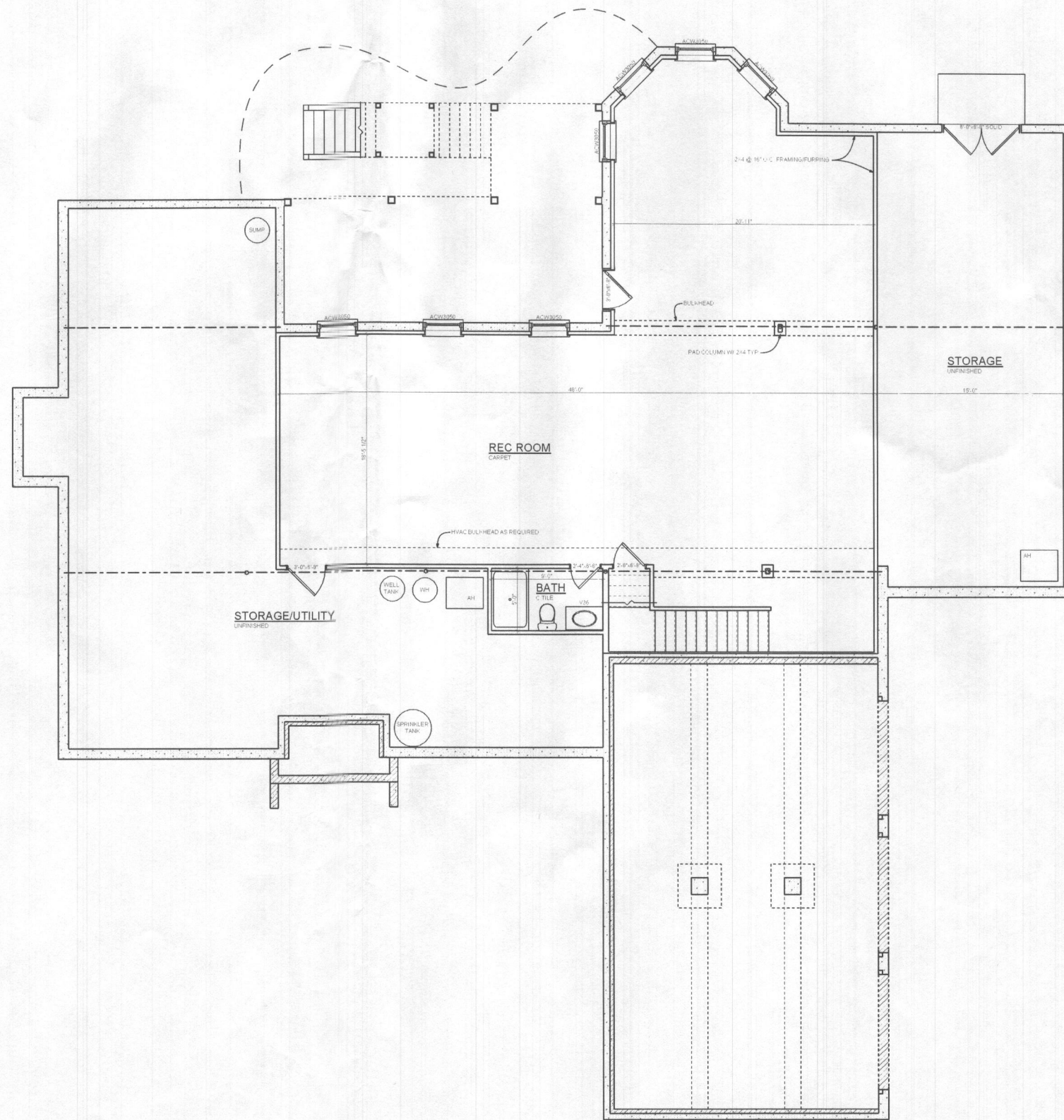
Left Elevation

SCALE: 3/16" = 1'-0"

Does it Cost



**NOTE: ENGINEERED FLOOR JOISTS TO BE MINIMUM TJI 210 SERIES OR EQUAL. FLOOR JOISTS TO BE DESIGNED FOR L/480 MAX DEFLECTION (L/540 @ TILE/BRITTLE FINISHES) TYPICAL THROUGHOUT.**



**Finished Basement Plan**  
 SCALE: 1/4" = 1'-0"

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A-5

