

# NOTES

- 1. Topography shown hereon was taken from Baltimore County GIS Topography
- & Updated by field survey. (JULY 2016) 2. The Firm Insurance Rate Map, 240010-0295 G indicates this is situated within flood Zone AE 6 & 7 F.E.M.A. indicates a Flood Elevation of 8.5 NAVD 88 based on a Flood
- Insurance Study Number 240010V000B. A minimum first floor elevation 10.5 NAVD 88. 3. Property lines shown hereon were established by boundary survey by Leonard Buarhous, Property Line Surveyor #349.
- 4. This site is situated within the Chesapeake Bay Critical Areas and is classified by land use as Limited Development Area (LDA) (MAP 73).
- 5. There shall be no clearing, grading, construction or disturbance of vegetation within the 100' Buffer Area except as permitted by the Baltimore County Department of Environmental Protection and Resource Management.
- 6. Any Critical Area easement shown hereon is subject to protective covenants which may be found in the Land Records of Baltimore County and which restrict disturbance and use of these areas.
- 7. This site is situated within a Mapped Buffer Management Area of the Chesapeake Bay
- 8. There are no forest or developed woodlands on this site.
- 9. There are no Tidal & Non-Tidal Wetlands shown on this site.
- 10. There is no significant plant or animal habitat on this site.
- 11. There are no slopes greater than 15% on this site.
- 12. There are no known wells on this site.
- 13. There are no known underground storage tanks or septic systems on this site. 14. There are no known potentially hazardous materials on this site as defined by Title 7—
- 15. There are no buildings or property within this site that are included on the Maryland Historical Trust Inventory, The Baltimore County Landmarks List, the National

Health and Environmental Article, Annotated Code of Maryland, except as noted.

- Register of Historic Places, the Maryland Archeological Survey or is a Baltimore County Historical District.
- 16. The site has 374'± of water frontage.
- 17. Public Water and sewer serve this site.

Critical Areas.

- 18. Caution underground utilities may exist in Bird River Grove Road & onsite, contact Miss Utility (800-257-7777) prior to any construction.
- 19. Proposed dwelling height 40' MAX.

# ZONING HISTORY CASE NO. 2017-122-SPHA

GRANTED DATE: JULY 06, 2017

# LOT COVERAGE AREAS

EXISTING COVERAGE FOR LOT 2

VACANT

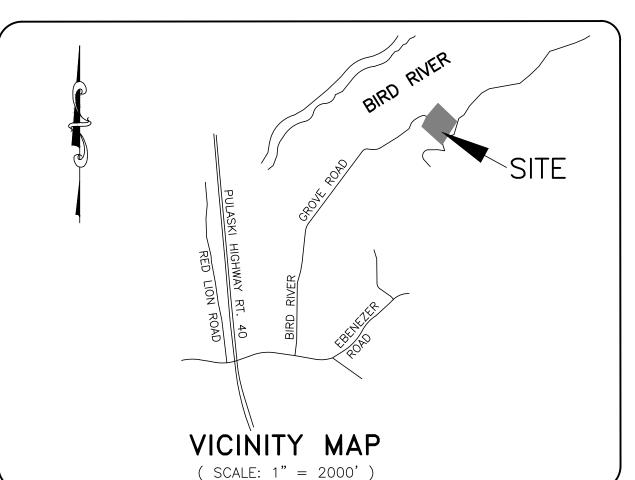
#### PROPOSED COVERAGE FOR LOT 2

HOUSE 300 S.F. DECK W/CONC.UNDER

328 S.F. DRIVE (BIT.PAVING) COVERED PORCH/STEPS 192 S.F.

TOTAL 2,020 S.F./6,316 S.F. = 31.98%

# LOT COVERAGE ALLOWED FOR LOT 2 = 25% + 500 S.F. = 2.079 S.F. OR 32.91%



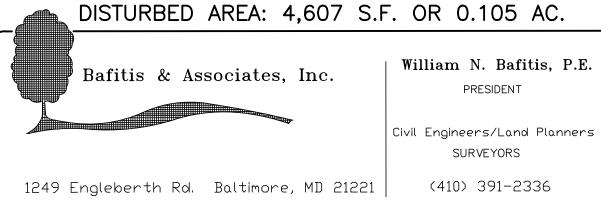
1) OWNER: BIRD RIVER GROVE LLC. C/O HOWARD CASTLEMAN 100 HARBORVIEW DRIVE PH-1B BALTIMORE, MARYLAND 21230 TELEPHONE 443-204-4715

- 2) DEED REF: 24000/425
- 3) TAX ACC. NO.: 15-13750331
- 4) TAX MAP: 73 PARCEL: 324 & 417 LOT: 2 5) PLAT REF: BIRD RIVER GROVE BOOK 07 FOLIO 189
- 6) ELECTION DISTRICT: 15TH
- 7) COUNCILMANIC DISTRICT: 6TH
- 8) REGIONAL PLANNING DISTRICT: 322B
- 9) CENSUS TRACT: 4517.02
- 10) ZONING: RC 2
- 11) ZONING MAP: 073B3
- 12) USE: EXISTING: RESIDENTIAL, SINGLE FAMILY DWELLING PROPOSED: RESIDENTIAL, SINGLE FAMILY DWELLING WITH GARAGE

13) SITE AREAS: 6,316 S.F. OR 0.145 AC.

FLOOD NOTE FOR BUILDING

F.E.M.A. FIRM MAP 240010-0295G DATED 05/05/14 AND THE BASE FLOOD ELEVATION IS 6.0 & 7.0 BALTIMORE COUNTY BUILDING CODE USE; F.E.M.A. FLOOD STUDY NO. 240010V000B DONE IN 09/26/08. THE BASE FLOOD ELEVATION IS 8.5 AND THE FLOOD PROTÉCTIÓN ELEVATION IS 9.5. PER BALTIMORE COUNTY POLICY.



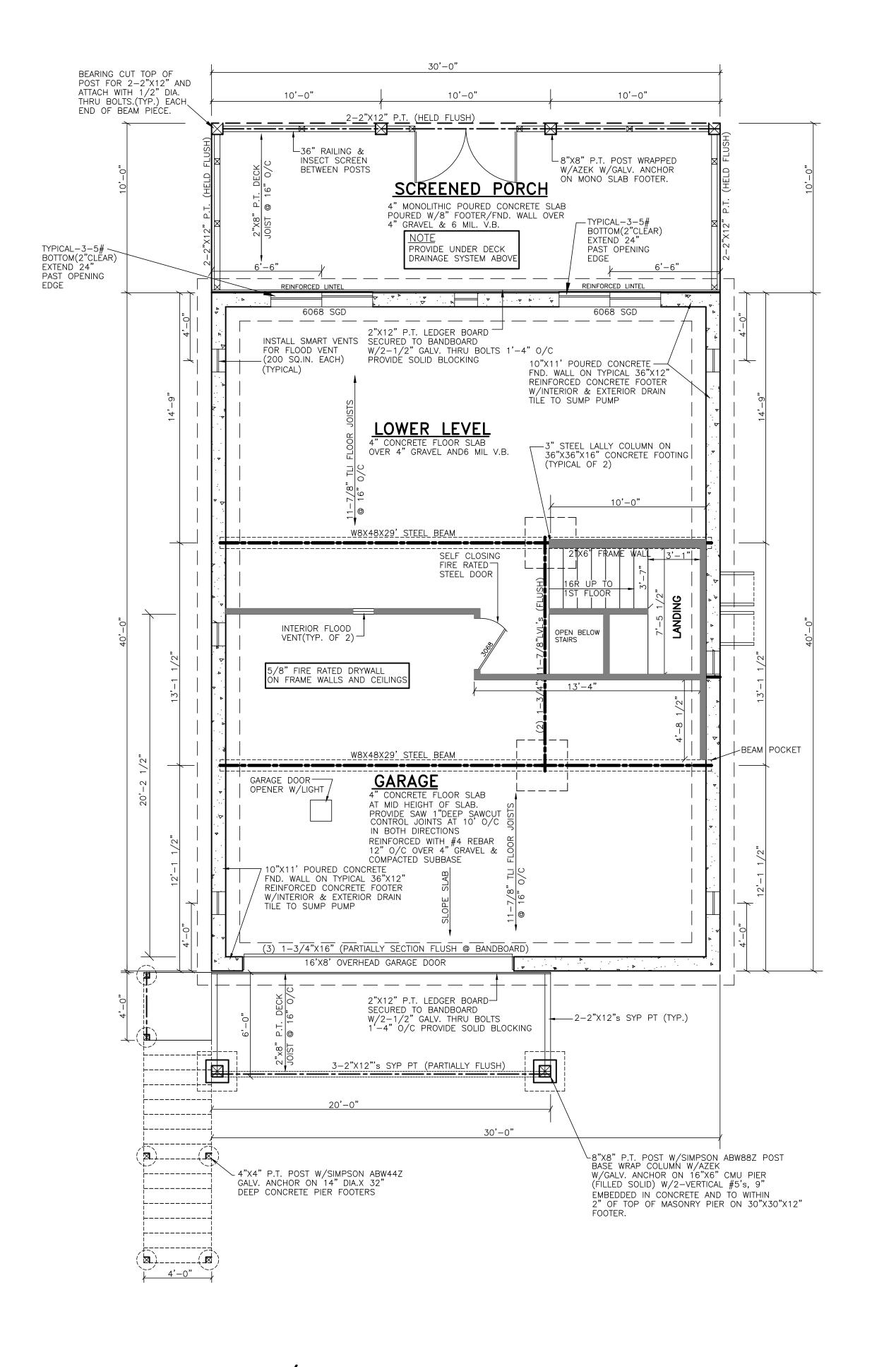
# PLAN TO ACCOMPANY BUILDING PERMIT APPLICATION FOR

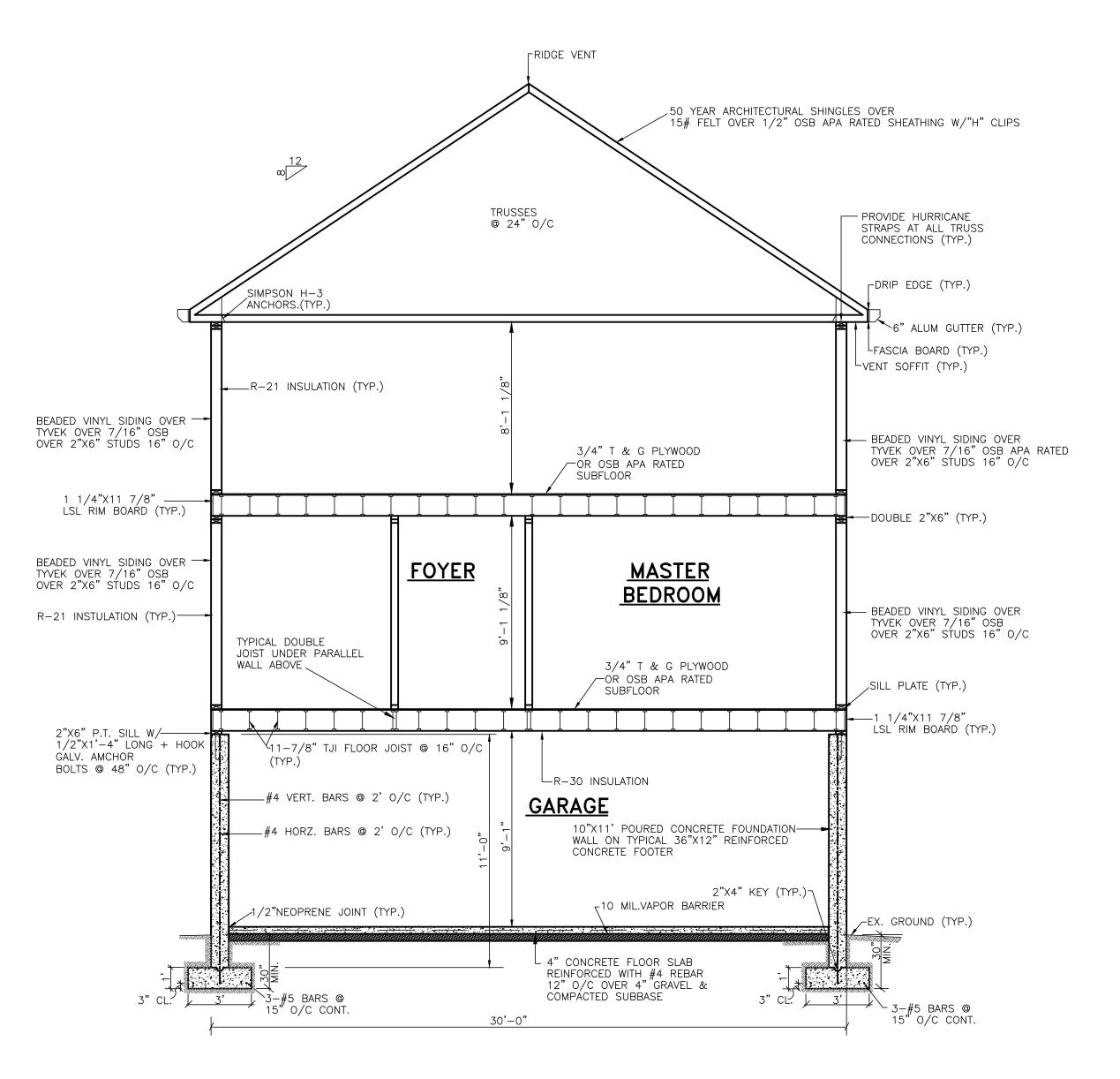
#11320 BIRD RIVER GROVE ROAD

BALTIMORE COUNTY, MARYLAND

15TH ELECTION DISTRICT

|  |                      | 1" = 20'  JOB ORDER NO:                                  |
|--|----------------------|--|
| WILLIAM N. BAFITIS, P.E. Professional Certification. I hereby certify that these documents were perpared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 11641 Expiration Date: 09/09/2019 | 1<br>SHEET_1_ OF _1_ | 21607  DATE:  03/23/18  CHECKED:  W.N.B.  DRAWN:  N.W.B. |
| NO. REVIS  | SIONS                | DATE   |





FOUNDATION/LOWER LEVEL FLOOR PLAN

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

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

0

William N. Bafitis, P.E. Professional Certification.

Expiration Date: 09/09/2019

hereby certify that these documents were perpared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 11641

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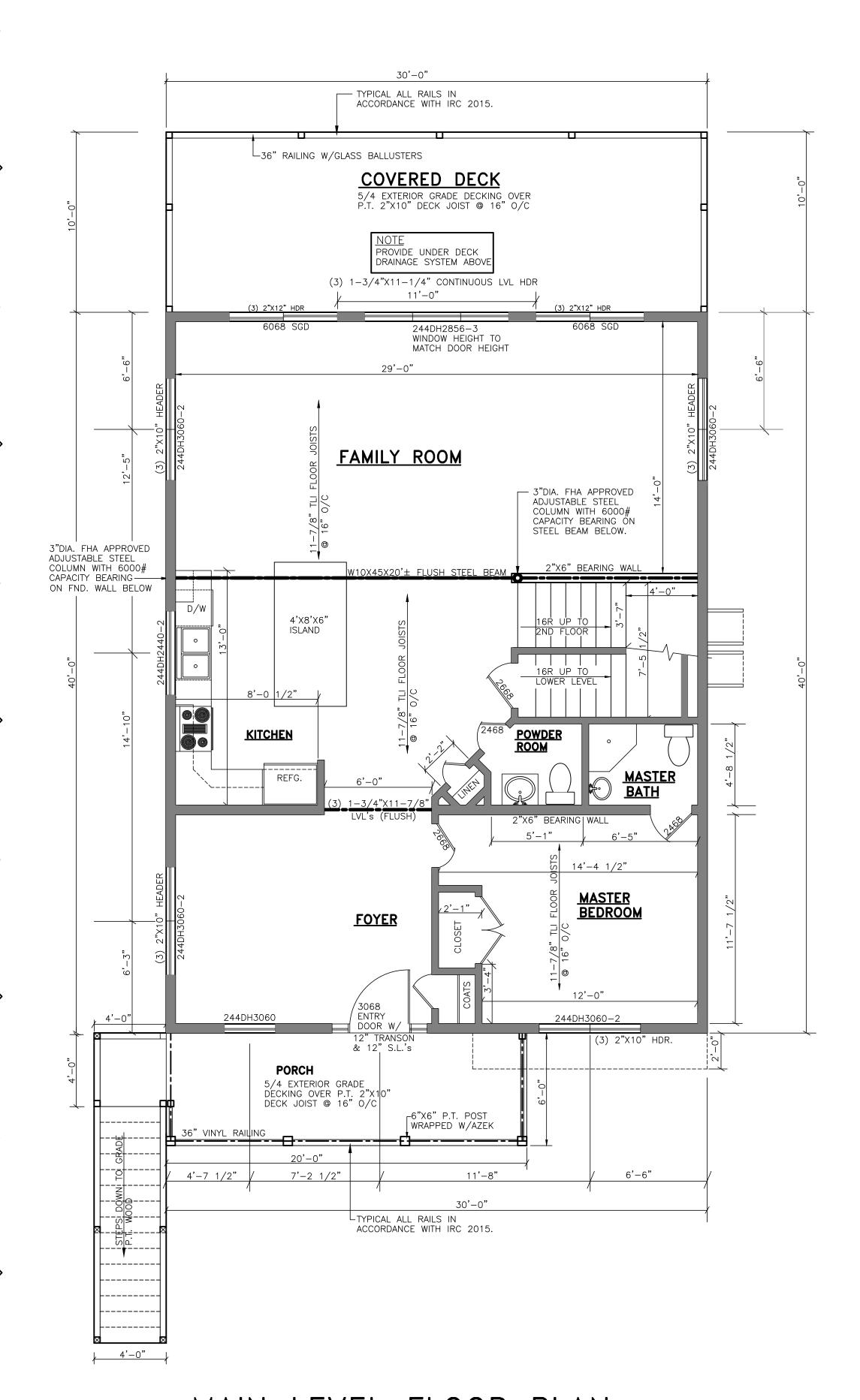
No. Date Revision

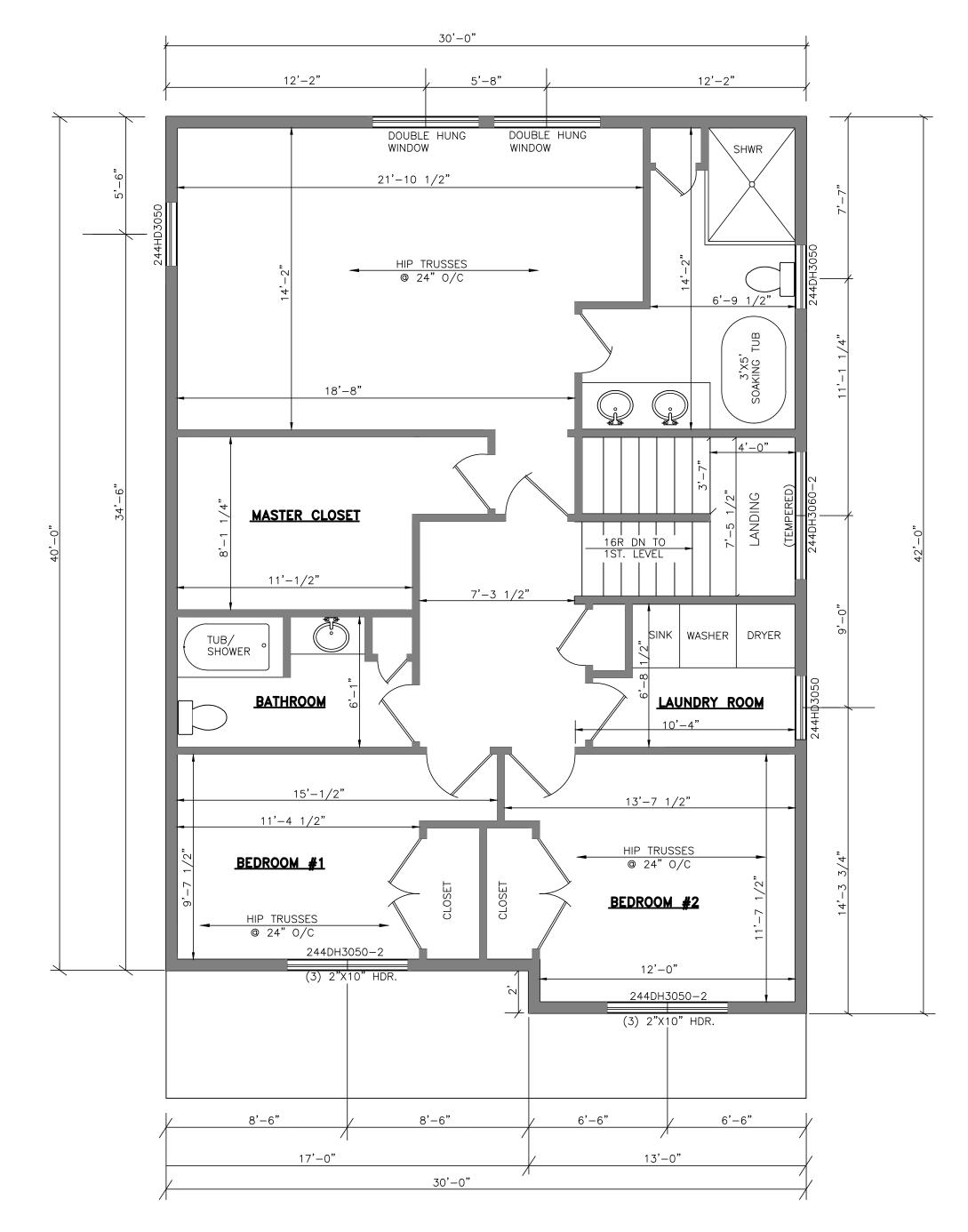
Project No.: **21607** Date: 03/20/18 Scale: AS\_NOTED

Drawing Name:

CONSTRUCTION PLAN

Drawing Number A





UPPER LEVEL FLOOR PLAN

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

MAIN LEVEL FLOOR PLAN

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

20 William N. Bafitis, P.E. Professional Certification. I hereby certify that these documents were perpared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 11641 Expiration Date: 09/09/2019 No. Date Project No.: **21607** Date: 03/20/18 Scale: AS\_NUTED Drawing Name: CONSTRUCTION PLAN

Drawing Number



# GENERAL STRUCTURAL NOTES

### 1. GENERAL

A. ALL CONSTRUCTION SHALL CONFORM WITH THE PROVISIONS OF THE 2015 INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS.

#### B. DESIGN LIVE LOADS:

C. THE CONTRACTOR SHALL PROVIDE ALL SHORING AND BRACING AS REQUIRED TO SUPPORT THE EXISTING STRUCTURE. THE CONTRACTOR SHALL EXAMINE THE EXISTING STRUCTURE TO DETERMINE THE EXTENT OF NECESSARY SHORING AND BRACING. THE CAPACITY AND METHOD USED FOR SHORING AND BRACING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

#### 2. FOUNDATIONS

- A. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF. FOOTINGS SHALL BEAR ON NATURAL UNDISTURBED SOIL, 1'-0" BELOW ORIGINAL GRADE. THE BOTTOM OF EXTERIOR FOOTINGS SHALL BE MINIMUM OF 2'-6" BELOW FINISHED GRADE. CONTRACTOR SHALL HAVE VERIFIED BY A LICENSED GEOTECHINICAL ENGINEER THE ALLOWABLE SOIL PRESSURE IN THE FIELD. IF FOUND TO BE LESS THAN 2,000 PSF, THE FOOTINGS WILL HAVE TO BE REDESIGNED.
- 3. CAST IN PLACE CONCRETE

  A. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST APPROVED (BY LOCAL GOVERNMENT) EDITIONS OF THE FOLLOWING A.C.I. AND A.S.T.M. DOCUMENTS.

ACI-301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
ACI-308 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

- B. ALL CONCRETE EXCEPT AS NOTED, SHALL BE (f'c=3,000 PSI) STONE AGGREGATE CONCRETE AT 28 DAYS. ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR ENTRAINED.
- C. SLABS ON GROUND SHALL BE 4" THICK CONCRETE REINFORCED WITH 6"X6" WI.4XWI.4 WWF OVER 6 MIL POLYETHYLENE VAPOR BARRIER AND 4" WASHED GRAVEL UNLESS OTHERWISE NOTED.

#### 4. MASONRY

- A. ALL MASONRY CONSTRUCTION AND MATERIALS USED THEREIN (CONCRETE MASONRY, CLAY MASONRY, MORTAR, GROUT AND STEEL REINFORCEMENT) SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530.1-92/ASCE 6-92/TMS 602-92) IN ALL RESPECTS.
- B. MASONRY BEARING WALLS SHALL CONSIST OF STANDARD HOLLOW UNITS CONFORMING TO ASTM C 90 UNLESS OTHERWISE NOTED. WHERE SOLID UNITS ARE REQUIRED, PROVIDE UNITS CONFORMING TO ASTM C 145.
- C. ALL MORTAR SHALL CONFORM TO THE REQUIREMENTS FOR PROPORTIONS, MIXING, STRENGTH AND APPLICATION FOR PORTLAND CEMENT/LIME TYPE "S" MORTAR AS DESCRIBED IN ACI 530-2.
- D. ALL GROUT FILL IN MASONRY PIERS SHALL CONFORM TO ASTM C 476. SLUMP RANGE 8-11" PLACE GROUT IN 5'-0" MAXIMUM POUR HEIGHTS AND CONSOLIDATE BY MECHANICAL VIBRATION.

### 5. STRUCTURAL STEEL

A. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM SPECIFICATION A-992(LATEST LOCAL APPROVED). ALL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC MANUAL, AISC SPECIFICATION AND AISC CODE OF STANDARD PRACTICE. (LATEST EDITIONS)

ALL WELDED CONNECTIONS SHALL BE DONE WITH E10XX ELECTRODES. SHOP AND FIELD WELDS SHALL BE MADE BY APPROVED CERTIFIED WELDERS AND SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE FOR BUILDINGS AWS D1.1 WELDS SHALL DEVELOP THE FULL STRENGTH OF MATERIALS BEING WELDED UNLESS OTHERWISE NOTED.

## 6. WOOD

- A. STRUCTURAL SOLID WOOD RAFTERS, JOISTS, BEAMS AND STUDS SHALL BE HEM FIR #2 OR SPRUCE PINE FIR #2 SURFACED DRY AT A MAXIMUM OF 19% MOISTURE CONTENT. ALL LUMBER EXPOSED TO WEATHER SHALL BE PRESSURE TREATED SOUTHERN PINE #2. ALL FABRICATION, ERECTION, OTHER PROCEDURES, AND MINIMUM UNIT STRESSES SHALL CONFORM TO THE CURRENT "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".
- B. WOOD TRUSSES SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (ANSI/TP 1) AND COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES (HIB-LATEST EDITION) AS PUBLISHED BY THE TRUSS PLATE INSTITUTE AND IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
- C. WOOD TRUSSES AND ENGINEERED FLOOR JOISTS ARE TO BE DESIGNED BY THE SUPPLIER. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER/ARCHITECT FOR REVIEW. ALL TRUSSES AND JOISTS SHALL BE DESIGNED TO LIMIT THE BEARING STRESS TO 425 PSI WHEN MEMBERS BEAR ON STUD WALLS, PROVIDE MEMBERS OF ADEQUATE WIDTH OR METAL CONNECTIONS TO LIMIT STRESSES TO THE SPECIFIED VALVE.
- D. ALL LAMINATED VENEER LUMBER (L.V.L.) OR PARALLEL STRAND LUMBER (PSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES, Fb=2600 psi, Fv=285 psi, E-1,900,000 psi, Fc=251 opsi (PARALLEL), Fc=750 psi (PERPENDICULAR).
- E. ALL DOUBLE MEMBERS SHALL BE NAILED TOGETHER WITH 2 ROWS OF 16d NAILS SPACED AT 12" O.C. ALL TRIPLE MEMBERS SHALL BE NAILED TOGETHER WITH 3 ROWS OF 16d NAILS SPACED 12" O.C. NAILED FROM EACH SIDE.
- F. PROVIDE DOUBLE JOISTS AT PARALLEL PARTITIONS WHERE PARTITION LENGTH EXCEEDS 1/3 JOIST SPAN.

- G. ALL NAILS ARE TO BE COMMON WIRE NAILS. NAILING OF ALL FRAMING SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS BUT IN NO CASE SHALL BE LESS THAN THE RECOMMENDED NAILING SCHEDULE CONTAINED IN THE 2015 INTERNATIONAL RESIDENTIAL CODE. ALL MULTIPLE STUD POSTS ARE TO BE NAILED TOGETHER WITH 12d NAILS @ 6" O.C. STAGGERED.
- H. PROVIDE BRIDGING SPACED AT 48" O.C. IN FIRST TWO JOIST, RAFTER OR TRUSS SPACES WHEN FRAMING IS PARALLEL TO EXTERIOR WALL. NAIL SHEATHING (FLOOR, CEILING OR ROOF) TO BRIDGING AND NAIL BRIDGING TO EXTERIOR WALL PLATE. PROVIDE ONE ROW OF BRIDGING BETWEEN ALL FLOOR AND ROOF JOISTS FOR EACH 8'-0" OF SPAN. PROVIDE SOLID BLOCKING OR A CONTINOUS RIM JOIST AT THE BEARING OF JOISTS, RAFTERS OR TRUSSES ON WOOD PLATES.
- I. PROVIDE THE FOLLOWING JAMB STUDS AT ALL BEARING WALL OPENINGS UNLESS NOTED OTHERWISE.

0-3" OPENING 3'-1" - 6'-0" OPENING 6'-1" - 9'-0" OPENING 1 JACK STUD, 1 KING STUD 2 JACK STUDS, 1 KING STUD 2 JACK STUDS, 2 KING STUDS

PROVIDE DOUBLE STUDS AT ALL CORNERS AND BENEATH ALL GIRDER TRUSSES AND WOOD BEAMS UNLESS NOTED OTHERWISE ON PLANS, WOOD BEAMS, GRIDER TRUSSES AND HEADERS SHALL BEAR THE FULL DEPTH OF POSTS AND JACK STUDS.

- J. ALL POSTS (MULTIPLE STUDS OR SOLID POST) SUPPORTING BEAMS, WALL HEADERS OR GIRDER TRUSSES, SHALL BE BLOCKED SOLID FOR THE FULL LENGTH AND WIDTH OF POSTS AT ALL INTERSECTIONS WITH FLOORS AS REQUIRED TO PROVIDE CONTINUOUS SUPPORT TO TOP OF FOUNDATION WALLS OR BEAMS. POST SHOWN ON UPPER LEVELS FLOORS SHALL ALSO BE INSTALLED ON THE LOWER LEVELS IN LINE WITH THE POST ABOVE DOWN TO FOUNDATION WALLS OR BEAMS.
- K. ALL FLUSH JOIST TO BEAM OR BEAM TO BEAM CONNECTIONS SHALL BE MADE WITH JOIST OR BEAM HANGERS TO SUPPORT THE LOAD CAPACITY INDICATED ON THE PLANS OR THE FULL CAPACITY OF THE JOIST OR BEAM. HANGERS SHALL BE PROVIDED BY SIMPSON STRONG TIE OR USP LUMBER CONNECTIONS. THE SUPPLIER SHALL DESIGN ALL HANGERS FOR THE CAPACITY STATED. INSTALL ALL HANGERS IN STRICT CONFORMANCE TO THE MANUFACTURES INSTRUCTIONS. FILL ALL NAIL OR BOLT HOLES USING THE SPECIFIED NAILS AND BOLTS ONLY.

#### 2015 IECC CODE COMPLIANCE R301.1 CLIMATE ZONE 4 R401.2 COMPLIANCE METHOD. MANDATORY AND PRESCRIPTIVE PROVISIONS R402.1.1 ATTIC INSULATION: R-49 RAISED HEEL TRUSSES: R-38 R402.1.1 WOOD FRAME WALL: R-20 OR R-13 + R-5 CONTINOUS INSULATION R402.1.1 BASEMENT WALL INSULATION: R-13/R-10 FOIL FACED CONTINOUS, UNINTERRUPTED BATTS R402.1.1 CRAWL SPACE WALL INSULATION: R-13/R-10 FOIL FACED CONTINOUS BATTS FULL HEIGHT EXTENDING FROM FLOOR ABOVE TO FINISH GRADE LEVEL AND THEN VERTICALLY OR HORIZONTALLY AN SDDITION 2'-0" FLOOR INSULATION OVER UNCONDITIONED SPACES: R-19 BATT INSULATION WINDOW U-VALVE / SHGC 0.35 (U-VALVE)0.40 (SHGC) SLAB ON GRADE FLOORS LESS THAN 12" BELOW GRADE: R-10 RIGID FOAM BOARD UNDER SLAB EXTENDING EITHER 2'-0" HORIZONTALLY OR 2'-0" VERTICALLY. R402.2.4 ATTIC ACCESS: ATTIC ACCESS SCUTTLE WILL BE WEATHERSTRIPPED AND INSTULATED R-49. BUILDING THERMAL ENVELOPE (AIR LEAKING): EXTERIOR WALLS AND PENETRATIONS WILL BE SEALED PER THIS SECTION OF THE 2015 IECC WITH CAULK, GASKETS, WEATHERSTRIPPING OR AN AIR BARRIER OF SUITABLE MATERIAL. R402.4.1 BUILDING ENVELOPE TIGHTNESS TEST: BUILDING ENVELOPE TIGHTNESS AND INSULATION INSTALLATION MUST MEET THE INSPECTION CRITERIA LISTED IN TABLE 402.4.1.2. A "BLOWER DOOR AIR INFILTRATION TEST" SHALL PERFORMED IN ALL UNITS, SEE ALSO SECTION R303.4 OF THE 2015 IRC. R402.4.2 ALL WOOD BURNING MASONRY FIREPLACES WILL HAVE TIGHT-FITTING FLUE DAMPERS AND OUTDOOR COMBUSTION AIR. FIREPLACES SHALL HAVE GASKETED DOORS. R402.4.4 RECESSED LIGHTING: RECESSED LUMINARIES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMT AIR LEAKAGE. R403.1 THERMOSTAT: ALL DWELLING UNITS WILL HAVE AT LEAST (1) PROGRAMMABLE THERMOSTAT FOR EACH SEPARATE HEATING AND COOLING SYSTEM PER 2015 IECC SECTION 403.1 WHERE A HEAT PUMP SYSTEM HAVING SUPPLEMENTARY ELECTRIC RESISTANCE HEAT IN USED THE THERMOSTAT SHALL PREVENT THE SUPPLEMENTARY HEAT DROM COMING ON WHEN HEAT PUMP CAN MEET HEATING LOAD. R403.2.1 MECHANICAL DUCT INSULATION: SUPPLY DUCTS IN ATTIC R-8 MINIMUM SUPPLY DUCTS OUTSIDE OF CONDITIONED SPACES R-8 MINIMUM ALL OTHER DUCTS EXCEPT THOSE LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE R-6 MINMUM DUCTS LOCATED UNDER CONCRETE SLABS MUST BE R-6 MINMUM. R403.2.2 DUCT SEALING: ALL DUCTS, AIR HANDLERS, FILTER BOXES WILL BE SEALED JOINTS AND SEAMS WILL COMPLY WITH SECTION M160.1.4.1 OF THE IRC. A DUCT TIGHTNESS TEST ("DUCT BLASTER" DUCT TOTAL LEAKAGE TEST) WILL BE PERFORMED ON ALL HOMES AND SHALL BE VERIFIED BY EITHER APOST CONSTRUCTION TEST OR A ROUGH-IN TEST. DUCT TIGHTNESS IS NOT REQUIRED IF THE AIR HANDLER AND ALL DUCTS ARE LOCATED WITHIN THE CONDITIONED SPACE. R403.5 MECHANICAL VENTILATION: OUTDOOR (MAKE-UP) AIR WILL BE BROUGHT INTO THE HOME THRU A DÙCT WITH ÂN AUTOMATIC OR GRAVITY DAMPER.

R403.6

EQUIPMENT SIZING SHALL COMPLY WITH R403.6

MINIMUM EFFICIENCY ESTABISHED BY NAECA

A MINIMUM OF 75% OF ALL LAMPS (LIGHTS) MUST BE

THIS CONTRACTOR ALSO RESPONSIBLE FOR GENERATING

ALL MECHANICAL TESTING TO BE PERFORMED BY CONTRACTOR.

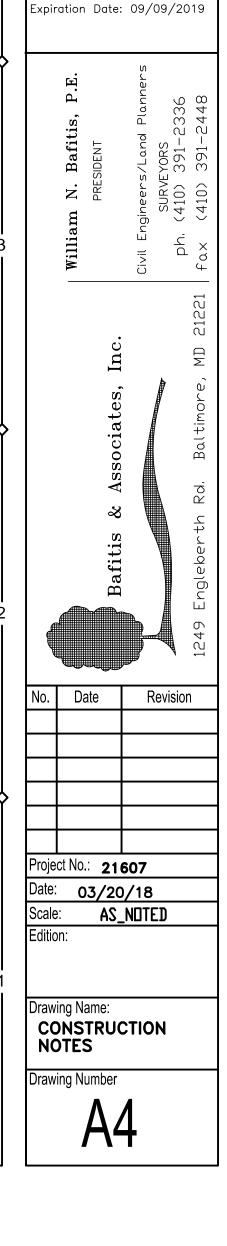
CERTIFICATE OF COMPLIANCE AND AFFIXING TO ELECTRICAL PANEL.

LIGHTING EQUIPMENT:

HIGH-EFFICACY LAMPS.

MACHANICAL TESTING:

WATER HEATER:



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William N. Bafitis, P.E.

Professional Certification.

hereby certify that these

documents were perpared or

approved by me, and that I

professional engineer under

the laws of the State of

am a duly licensed

License No. 11641

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