1. GENERAL REQUIREMENTS

A. The term "work" includes provisions noted in drawings, specifications, and written instructions.

B. The Architect shall rely upon site data supplied by the Civil Engineer, "Huntley Nyce" unless otherwise noted, however, it is the responsibility of the Contractor to visit the site to verify existing conditions, including underground and above ground utilities and improvements, and to perform all necessary tests and surveys to determine any possible conflicts with the proposed construction. Contractor shall notify the Architect and Owner in writing if any discrepancies or conflicts are found.

C. Work shall be performed in compliance with the following codes:
International Residential Code - 2000
Fauquier County, State of Virginia

D. Contractor shall be familiar with provisions of applicable codes and shall insure the compliance of the work with local, state and federal codes. In the event of conflict between local, state and national codes, the more stringent shall govern. Before commencing work not shown in documents, but required to achieve full compliance with codes, Contractor shall notify Owner and Architect.

E. These documents do not include the necessary components for construction safety. Execution of Owner Contractor Agreement indicates Contractor's acceptance of responsibility for safety, care of adjacent properties during construction, compliance with state and federal regulations regarding safety, and compliance with requirements specified.

F. Contractor shall supervise and direct the work and shall be solely responsible for construction means, methods, techniques, and safety procedures. Contractor shall coordinate work and trades to provide complete and proper execution of the contract.

G. Do not scale drawings. Use written dimensions for measurements. Dimensions are to face of stud or face of masonry unless otherwise noted.

H. Contractor shall pay taxes, secure permits and pay fees incurred in the completion of the project, including but not limited to water, electric and telephone service connection, certificate of occupancy, surveys, and inspections. The Architect will assist as necessary.

I. Summary of work - The Contractor shall include and provide labor, materials, equipment, and transportation and pay expenses incurred in the proper completion of work unless specifically noted to be the work of others. Contractor shall understand that the word "provided", as used in these documents, includes the purchase of the item specified, including taxes and any associated shipping and handling charges. Also included shall be the procurement and provision of all materials, equipment and labor associated with the complete installation of the item(s) specified in good working order. Contractor shall perform work necessary for producing a complete, habitable project, including but not limited to site work, architectural, electrical, plumbing and HVAC. Contractor to provide connection details for all non-standard beam to column, beam to beam, etc., signed and sealed by a professional engineer licensed in the State of Virginia for any connections not shown on contract documents. If approval by Architect/Engineer is not obtained prior to construction, then the Contractor shall assume all responsibility for the adequacy of the connections.

J. The bid prices shall include general requirements, products and installation for properly performing and completing the work required as indicated by the drawings and specifications. Information omitted therefrom which is clearly necessary for the completion of the work or its appurtenance shall be considered a portion of the work although not directly specified or shown on the drawings.

K. Insurance: Workmen's compensation, as required by law, and public liability shall be carried by the Contractor.

L. Guarantee: The Contractor shall unconditionally guarantee materials and workmanship furnished or installed by him or his Subcontractors for a period of one (1) year from the date of final inspection and shall replace defective work and materials within that period without expense to the Owner and pay for damages to other parts of the building resulting from defective work and materials or its repair. The Contractor shall replace defective work within seven (7) days after it is brought to his attention, unless otherwise agreed upon. The requirement shall not limit longer warranty or guarantee periods specified or included with products incorporated into the work, which shall be assigned to Owner.

M. Protection: The Contractor shall be responsible for his work and that of his Subcontractors for losses and damages to equipment, tools, and material used in conjunction with the work and for acts of his employees and shall protect and hold the Owner harmless from liability arising from damages therewith.

N. Cleaning up: The Contractor shall, on a daily basis keep the premises free from accumulation of waste material and rubbish At the completion of the work, the Contractor shall remove rubbish, implements, and surplus materials and leave the building clean, with painted and wood surfaces clean, floors waxed or polished as specified, and glass and mirrors cleansed and polished.

O. Contractor shall provide a list of Subcontractors to the Owner, complete with addresses, phone numbers and copies of warranties.

P. Contractor is required, as part of the contract, to maintain a phone and fax machine on site during the construction of the project.

Q. Contractor is required to notify the Architect in writing, regarding any changes requested by the Owner or Owners representative. Without this notification, the Contractor shall protect and hold the Architect harmless from liability arising from damages therewith.

R. AIA General Conditions, 1997 Edition, are a part of this project.

S. Claims for Extra Work - If the Contractor claims that any instructions by drawings or other requests for changes in the work involve extra cost under the contract, he shall give the Owner written notice thereof within a reasonable time after receipt of such instructions and have the Owner and Architects written approval in any event before proceeding to execute the work.

T. Allowances - All allowances and unit prices apply to materials only unless otherwise noted. The costs associated with installation, delivery, overhead and profit shall be included in the base bid, not in the allowance cost.

U. Changes in Work - The Owner without invalidating the Contract, may order extra work or make changes by altering, adding or deducting from the work, the contract sum being adjusted to reflect the amount saved or the additional amount incurred, as the case may be. All such work shall be executed under the condition of the original contract except for claims for extension of time caused hereby which shall be adjusted at time of change order execution.

V. DESIGN LOADS:

	LIVE LOADS	DEAD LOADS	TOTAL LOADS
ROOF-TRUSSES	30 PSF (SNOW)	40 PSF	70 PSF
RAFTERS	30 PSF (SNOW)	35 PSF	65 PSF
RECREATIONAL ROOM	60 PSF	60 PSF	120 PSF
TILE FLOORS	40 PSF	25 PSF	65 PSF
GARAGE FLOORS	50 PSF	50 PSF	100 PSF
OTHER FLOORS	40 PSF	10 PSF	50 PSF
STAIRS	40 PSF	10 PSF	50 PSF

BACKFILL: 30 PCF equivalent fluid weight, unless noted otherwise

WIND LOAD: WIND LOADS ARE EVALUATED IN ACCORDANCE WITH PROVISIONS OF SECTION 301(.) OF THE 2000 INTERNATIONAL RESIDENTIAL CODE BASED ON THE FOLLOWING PARAMETERS:
- BASIC WIND SPEED (00 MPH (3-SECOND GUST WIND SPEED)
- WIND LOAD IMPORTANCE FACTOR: 1.0
- WIND EXPOSURE CATEGORY: EXPOSURE C

If alternate roofing material is chosen.The weights are to be reviewed by engineer for possible structural changes.

W. The structural integrity of the building is dependent upon completion according to plans and specifications. The Architect and Structural Engineers assume no liability for the structure during construction. The method of construction and sequence of operations is the sole responsibility of the contractor. The contractor shall supply any necessary shoring bracing, guys, etc. to properly brace the structure against wind, dead and live loads until the building is completed according to the plans and specifications. Contractor shall not place back-fill against basement walls until the floor system is completely installed or contractor has provided adequate shoring and bracing. Any questions regarding temporary bracing requirements should be forwarded to a Structural Engineer for review.

X. Mechanical units and any other equipment supported by the structure with weights in excess of 200 lbs. shall be brought to the attention of the Structural Engineer prior to installation.

2. SITE WORK

A. Footing design is based on the following conditions:
SOIL BEARING CAPACITY: Minimum assumed 2000 psf: contractor shall field verify under all footings and slabs on grade.
WATER TABLE 2'-6" (Min.) Below bottom of all concrete slabs and footings.
SOILS: Footings, foundations walls & slabs shall not be placed on or in marine clay, peat or other organic materials.

B. All footings shall project at least 1'-0" into undisturbed natural soil or compacted structural fill. Bottom of footings shall extend to lower of 2'-6" below finish grade, or to 6" below 50 year frost line. DO NOT place footings on wet or frozen soil. Where required, step footings in a ratio of 2 horizontal to 1 vertical.

C. Footing excavations shall be inspected by the building official prior to pouring concrete.

D. Provide 4" min. drain tile at bottom of all exterior footings at basement walls, at the interior foundation wall between the first floor slab and basement. Tile to be set on 2" gravel bed with 6-8" gravel cover and shall drain to daylight. Install filter fabric around gravel and drain tile.

E. Provide free draining, granular backfill with a maximum equivalent fluid pressure = 30 pcf per foot of depth against basement & retaining walls. If back-fill pressure exceeds 30 pcf then wall must be designed for actual pressures by Structural Engineer.

F. Erosion control shall be implemented as required by local authorities. During construction, provide staked bales and/or siltation fence at all excavated areas.

G. Soil beneath slabs @ perimeter or foundations shall be treated for termites before placing concrete. Soil @ perimeter shall be treated at completion of work.

H. Fine grading around new construction shall be included in the contract for construction. Save and store topsoil in a manner as to provide it and prevent its loss through runoff. Topsoil shall be placed in an approved manner.

I. All fill under concrete slabs on grade shall be free-draining granular material at least 4" thick. The granular subgrade should generally conform to graded coarse aggregate of bank run gravel. e.g. SRO designation to DOA, CR-4&1, GP, or GP-1 and contain not more than 12% passing the US standard sieve No. 200, at least 20% passing the US standard sieve No. 4, at least 50% passing the US standard 1" sieve and 100% passing the US standard 2" sieve.

J. Compacted back-fill below building slabs: Soil fill material shall be approved by a Soils Engineer prior to placement. Material shall be free from organic material, trash, muck, roots, logs, stumps, concrete, asphalt or other deleterious substances. Prior to placing fill, the existing surface shall be cleared of refuse and organic material. Fill material shall be placed in layers not to exceed 8" and compacted to min. 95 % of the max. dry density as determined by ASTM D 698. Alternate use of gravel backfill is permitted with Structural Engineer's approval.

K. Contractor shall calculate cut and fill generated through excavation and rough grading and make provision to supply additional fill dirt or remove (haul) excess soil from the site as required. Costs associated with import or export of soil from or to the site, including but not limited to equipment use, labor, dump fees and contractor's direct general expense and overhead shall be included as part of the construction contract. If feasible, excess soil may be spread on site with prior written approval from the Owner.

3. CONCRETE/FOUNDATIONS

A. All reinforced concrete to be in accordance with the American Concrete Institute ACI 318-89. All plain concrete to conform to ACI 318.1 and ACI 332R-84 guide to residential cast-in-place concrete construction.

B. Minimum specified compressive strength: f'c @ 28 days.

LOCATION OF CONCRETE	STRENGTH (f'c)	SLUMP (IN)
BASEMENT WALLS & FND (NOT EXPOSED TO WEATHER) BASEMENT SLABS & INTERIOR SLABS ON GRADE	2500 PSI (1)	4 +/- 1
BASEMENT WALLS, FOUND., EXTER. WALLS & OTHER VERTICAL CONCRETE WORK EXPOSED TO WEATHER	3000 PSI (2)	4 +/- 1
DRIVEWAYS, CURBS, WALKS, PATIOS, PORCHES, STEPS & STAIRS & UNHEATED GARAGE FLOORS EXPOSED TO WEATHER	3500 PSI (2)	4 +/- 1

C. Air-Entrainment: All concrete shall be air-entrained as follows:
Aggregate Size Air-Entrainment
3/8" - 1/2 inch 7.0 %
3/4 inch 6.0
1 inch 6.0

D. Aggregate shall conform to ASTM C33 and may range from 3/8" to 1" in size.

E. Reinforcing steel shall be high strength new billet steel conforming to American Society for Testing and Materials (ASTM) A-615, Grade 60 (60,000 PSI). Welded wire fabric (WWF) shall conform to ASTM A-185. All reinforcing shall be detailed, fabricated, and placed in accordance with the ACI's "Manual of Standard Practice for Detailing Concrete Structures" (ACI-315). Details of reinforcement shall conform to ACI 318-91, ACI 315-74 AND CRSI standards.

CONCRETE PROTECTION FOR REINFORCEMENT:
Provide the minimum clearance (cover) for reinforcement as follows:
Footings and other concrete poured against earth 3"
Formed concrete exposed to earth 2"
Formed concrete not exposed to weather or earth 1-1/2"
Slabs on ground, unless otherwise noted Mid-Depth

F. Slabs on grade shall be 4" thick concrete and reinforced with 6x6 W1.4xW1.4 WWF. Lap mesh 8" in each direction. Place concrete over 6 mil. polyethylene vapor barrier and 4 inches minimum of coarse aggregate or as recommended by soils engineer. The aggregate layer shall be placed over firm natural subgrade or compacted and controlled fill. Fill under slabs shall be compacted in 8-inch layers to 95 Use air entrained at all exterior slabs. Pour slabs in alternate panels with a maximum of 600 SF and provide control and construction joints at 30'-0" maximum or as required to prevent uncontrolled cracking. See item 10.C. per radon abatement requirement.

G. Provide 3' x 3' corner bars to match all horizontal reinforcing in walls and footings. All laps shall be a minimum of 36 bar diameter. Provide dowels between all footings, walls and piers to match size and spacing of vertical reinforcing.

H. Concrete footings for the following walls are the minimum required:
a. 8" masonry or concrete wall -- 16" x 8" deep.
b. 10" masonry or concrete wall -- 20" x 10" deep.
c. 12" masonry or concrete wall -- 24" x 12" deep.
d. Masonry piers and chimneys-Footings shall have 6" projections x 12" depth minimum. Where the drawings indicate a greater footing size, the greater size shall be used. Footings shall have minimum 2 #4 bars continuous with masonry walls when footings are placed over fill or soil of different compaction levels.

I. Bomanite/Bomanite imprinted shall be installed in accordance with the standards and specifications of Bomanite Corporation and ACI.

4. MASONRY

A. MATERIALS
Hollow CMU: Normal weight: ASTM C-90-85, Grade N
Concrete Brick: ASTM C-55-75 TYPE I, Grade S
Solid CMU: Normal weight: ASTM C145-85, Grade N
Mortar: ASTM C270-82, Proportion specification mortar shall consist of Type I Portland Cement, Type S hydrated lime and approved aggregate
Grout: ASTM C476 or 2500 PSI PEA grout mix concrete

B. All masonry work shall conform to the applicable requirements of the Brick Institute of America and NCMA. Specification for the concrete masonry construction (ACI 531.1-76).

C. Solid masonry wall to have "DUR-O-WALL" (or approved equal) truss ties at 16" o.c. vertically above grade and 8" o.c. vertically below grade.

D. Lintels for CMU walls unless otherwise noted: Provide minimum 4" bearing at each end.
Openings to 4'-0": 3-1/2"x3x1/2" - 3 1/2" Horizontal
4'-0" to 5'-6": 4"x3 1/2"x5/16" - 3 1/2" Horizontal
5'-6" to 7'-6": 5"x3 1/2" x5/16" - 3 1/2" Horizontal
7'-6" to 9'-0": 6"x3-1/2"x5/16" - 3 1/2 " Horizontal

E. Unless other wise noted, 8" and 12" masonry foundation walls shall be reinforced vertically and grouted solid at reinforced cores as follows:
Height of wall (H) 8'-0" maximum from slab to top of wall (H):
* Exterior Grade = H to 7.5H_ #4 @ 24
* Exterior Grade = Less than 7.5H_ None
For 9' maximum from slab to underside of joists (H):
* Exterior Grade = H to 7.5H_ #5 @ 32
* Exterior Grade = 7.5H to 5.0H_ #5 @ 48
* Exterior Grade = Less than 5.0H_ None
Place reinforcement 1 inch clear from inside face of tension side of wall (i.e.: interior side of wall)

F. All stone veneer construction to be in accordance with 1996 BOCA requirements. Sections 1405.0 & 1405.5.1 Stone veneer shall meet the following standards.
Stone Veneer - ASTM C-97, C-99, C-170 & C-880

G. Stone veneer shall be attached to wood studs in accordance with 1996 BOCA section 1405.5.1 No.2.

5. STEEL

A. Structural steel and angles shall conform to ASTM A-36. Steel pipes shall be ASTM A-501 @ A-53 with Fy = 36 ksi. Tubes shall be A500 or A501 with Fy = 46ksi. Tubes shall be A500 or A501. Connections shall be capable of supporting allowable uniform load stress of 24 ksi. Bolted field connection shall be 3/4" diameter high strength bolts meeting ASTM Spec. A-325. Provide welded connections typically unless otherwise indicated.

B. Structural steel shall have minimum strength, Fy=36ksi.

C. Welds shall comply with AWS D11-80.

D. Connections shall be AISC Standard.

E. Provide base plate for all structural steel beams bearing on concrete or masonry.

F. Adjustable steel columns shall be certified by BOCA and shall have a mark indicating the BOCA research report number, the manufacturer's name, and date of manufacture on each column. Columns shall have a minimum 8"x4"x1/4" bearing plate and screw jack shall be encased in concrete or tack welded after installation. Capacity rating should be designated on column.

6. WOOD

A. Joists, headers and trimmers shall be minimum #2 SPF having the following properties unless noted otherwise:
Fb = 875 PSI
Fc par. = 425 PSI
Fv = 70 PSI
E = 1,200,000 PSI

B. Exterior bearing wall studs shall be minimum #2 grade SPF having the following properties unless noted otherwise:
Fb = 875 PSI
Fc par. = 425 PSI
Fc par. = 675 PSI
E = 1,400,000 PSI
See plans for size and spacing and special requirements.

C. Lumber for decks not used.

D. SCL's (structural composite lumber) shall be the width and depth specified on the plans, and shall be secured together as directed by the manufacturer. They shall have the following properties:

LVL	PSL
Fb = 2600 PSI	Fb = 2900
Fv = 285 PSI	Fv = 290
Fc par = 750 PSI	Fc par = 650
E = 1,900,000 PSI	E = 2,000,000

E. All studs shall be installed in accordance with NFPA Members are not to be drilled in excess of NDS or local code requirements, whichever is more stringent. All posts and multiple studs shall be run continuously to solid bearing on foundation walls or beams& provide solid blocking at floors. Studs and joists or floor trusses shall align at cantilevers, above and below the joist or truss. Where roof trusses are spaced at 24" o.c. and studs are 16" o.c., provide #2 STP double top plates (where truss length is less than 31') and place stud under each truss, with a tolerance of not more than 1".

F. PRE-FABRICATED WOOD TRUSSES
I. WORK INCLUDED. FABRICATE, SUPPLY AND ERECT WOOD TRUSSES AS SHOWN ON THE DRAWINGS AND AS SPECIFIED. WORK TO INCLUDE ANCHORAGE, BLOCKING, CURBING, MISCELLANEOUS FRAMING AND BRACING.
2. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH NDS0, AFPA, NDSMPCWTC, TPI, 2000 IRC AND THE FOLLOWING REQUIREMENTS:
-TRUSS MEMBERS
COMPONENTS & CLADDING, EXPOSURE C CASE 1, INTERIOR ZONE 1
-TRUSS UPLIFT REACTIONS
MAIN WINDFORCE-RESISTING SYSTEM
EXPOSURE C CASE 1, BASED ON WINDWARD OR LEEWARD ROOF (WHICHEVER IS GREATER)
3. MANUFACTURER SHALL FURNISH DESIGN DRAWINGS BEARING THE SEAL AND REGISTRATION NUMBER OF THE DESIGN PROFESSIONAL LISCENSED IN THE STATE WHERE TRUSSES ARE TO BE INSTALLED. DRAWINGS SHALL BE APPROVED BY ARCHITECT AND SER PRIOR TO FABRICATION.
4. INCLUDED IN THE MANUFACTURER DESIGN DRAWING PACKAGE SHALL BE SIGNED AND SEALED COPIES OF THE FOLLOWING ITEMS:
LETTER STATING THAT GOVERNING DESIGN CRITERIA HAS BEEN MET, TRUSS LAYOUT PLAN TO MATCH THE CONCEPT GENERATED ON THE STRUCTURAL DESIGN DRAWINGS, & INDIVIDUAL TRUSS PROFILES THAT SHOW CORRECT LOADING, SPACING, MAX. DEFLECTIONS, MEMBER FORCES, DIMENSIONS, LUMBER GRADE AND SPECIES, AND REACTION/UPLIFT FORCES.
5. LUMBER USED SHALL BE IDENTIFIED BY THE GRADE MARK OF A LUMBER INSPECTION BUREAU OR AGENCY APPROVED BY BOARD OF REVIEW OF THE AMERICAN LUMBER STANDARDS COMMITTEE.
6. CONNECTOR PLATES SHALL MEET OR EXCEED ASTM A446 STEEL..
7. TRUSSES SHALL BE FABRICATED IN COMPLIANCE WITH REQUIREMENTS IN NDSMPCWTC, TPI.
8. TRUSSES SHALL BE HANDLED DURING FABRICATION, DELIVERY AND AT JOB SITE SO AS NOT TO BE SUBJECTED TO EXCESSIVE LATERAL BENDING. ERECTION SHALL BE IN ACCORDANCE WITH HIB-91, TPI. TRUSSES MUST BE SET AND SECURED LEVEL AND PLUMB, AND IN CORRECT LOCATION. CUTTING AND ALTERING OF TRUSSES IS NOT PERMITTED.
9. BRACE TRUSSES SUFFICIENTLY DURING ERECTION TO PREVENT TOPPLING OR DOMINOING. INSTALL ALL BRACING BEFORE PLACING CONCENTRATED LOAD ATOP TRUSSES.
10. MANUFACTURER SHALL SUPPLY ALL REQUIRED HANGERS, HOLD DOWN STRAPS, SHEAR PANELS, CRIPPLES AND OTHER SPECIAL HARDWARE.
11. FLOOR TRUSS LIVE LOAD DEFLECTION SHALL NOT EXCEED L/480. FLOOR TRUSSES SUPPORTING BULKHEAD FLOOR FINISH ABOVE SHALL BE LIMITED TO L/720 LIVE LOAD DEFLECTION. IF A 2x RIBBON RATHER THAN A FULL HEIGHT SOLID BAND IS USED AT BEARING WALLS, THEN THE TRUSS MANUFACTURER SHALL SUPPLY PRE-CUT CRIPPLE STUDS TO TRANSFER WALL LOADS FROM FLOOR TO FLOOR BETWEEN STUDS.
12. ROOF TRUSS LIVE LOAD DEFLECTION SHALL NOT EXCEED L/360. A MINIMUM OF (1) SIMPSON' H2.5A OR EQUIVALENT HURRICANE CLIP WILL BE REQUIRED AT EACH TRUSS BEARING POINT. GIRDER TRUSSES SUPPORTING OTHER ROOF TRUSSES SHALL BE ANCHORED AT EACH BEARING POINT WITH A SIMPSON "H6" TIE DOWN OR APPROVED EQUIVALENT. ADDITIONAL UPLIFT FORCE RESISTANCE WILL BE DETERMINED AT THE TIME OF ROOF TRUSS SHOP DRAWING REVIEW. ALL GABLE END ROOF TRUSSES THAT ARE ADJACENT TO A CATHEDRAL OR SLOPED CEILING SHALL BE DESIGNED SO THAT THE WALL STUDS MAY SPAN TO THE BOTTOM OF THE CEILING LINE.

G. PREFABRICATED FLOOR JOISTS: Prefabricated floor joists shall be approved by a recognized testing agency. They shall be designed to carry all live and dead loads with the live load deflection not to exceed L/480 at wood or carpeted areas: deflection at Stone or Tile floors shall be a minimum of L/720. The manufacturer shall supply all required hangers, shear panels, blocking erection drawings to the engineer prior to fabrication. All prefabricated floor joists shall be installed and braced in accordance with the manufacturer's instructions.

H. Add extra joist under full height walls where wall extends more than half the span of the joist.

I. BLOCKING: Provide solid blocking @ 4'-0" o.c. at basement walls when joists are parallel to wall. Extend blocking 3 joist minimum.

J. All columns, sill plates, and ledges in or located within 8" of masonry or concrete to be pressure-treated to resist decay and insect infestation.

K. Floor sheathing to be glued andscrewed to substructure

7. THERMAL AND MOISTURE PROTECTION

A. Slabs on grade in habitable spaces (where grade is 30" or less above slab) shall be insulated with min. R-5 rigid insulation from top of slab downward to 24" below slab and inward 36" from exterior face of slab at slab perimeter areas in habitable areas.

B. Liquid applied waterproofing equal to American Hydrotech, shall be applied to exterior foundation walls below grade, at exterior face of wall. Parge CMU and concrete foundation walls from footing to grade. Application shall be 60 mil. thick.

C. Flashing: Code approved copper flashing shall be provided at top and sides of exterior window and door opening in such manner as to be leak proof. Similar flashings shall be installed at the intersection of chimneys or other masonry construction with frame walls, with projecting lips on both sides, under and at the ends of masonry, wood or metal copings and sills, continuously above projecting wood trim, at wall and roof intersections, at junctions of chimneys and roofs, and in all roof valleys and around roof openings.

D. Caulking: Caulk all joints at windows, doors, corners, etc. with 20-year butyl or equivalent. Provide Owner with samples before use.

E. Tyvek or Building paper is required behind stone veneer and wood siding.

F. Batt insulation shall have the R-value shown on drawings or indicated below, of an inert, stable composition such as manufactured by Owens-Corning.

G. 6" exterior walls shall typically have minimum R-19 Kraft-backed batt insulation. Roof shall typically have minimum R-30 Kraft-backed batt insulation. Spaces around window and doors shall be filled with expanded urethane foam. Brace frames prior to spraying foam. All corners, lintels and other inaccessible spaces in framing to be insulated during rough framing.

H. Sloped Roofing: Certainteed Grand Manor Shingles or standing seam pre-finished metal installation. In accordance with "The Integrity Roof System" Winterguard Underlayment. Roofers select at low slope areas, ridge vieuing "shingle vent". Provide continuous metal drip edge at roof edge. Provide Grand Manor Warranty and or metal roof finish If alternate roofing material is chosen.The wights are to be reviewed by engineer for possible structural changes.

8. DOORS AND WINDOWS

A. Window sizes indicated define intended aesthetic size and type. Contractor shall verify that windows to be installed comply with local code and FHA/VA standards for egress, light and ventilation. Refer to plans for specific window units. Window and exterior door units shall be manufactured by Weathershield or approved equal unless otherwise noted. Window and exterior door units to be insulated glass. Provide screens at specified operable windows and doors. Provide 6-9/16" jambs (field verify, some conditions may vary).

B. Interior door designations give width and height in feet and inches. Interior doors shall be 2 panel solid core. Wood, coordinate finish with owner. Provide Baldwin Hardware or equal style and finish to be selected by Owner.

9. FINISHES

A. To industry standards as required. Contractor shall coordinate materials and selections for finishes with the Owner.

B. Gypsum Wall Board (GWB) shall be 1/2", glued and screwed. Use water resistant GWB at backsplash areas of bathrooms, kitchen and laundry. Bathtubs and shower surrounds, including any tiled surface, shall be sheathed with Durock, Dens-Shield or Wonder Board.

C. Finished woodwork shall be dressed and sanded free from machine and tool markets, abrasions, raised grain, or other defects on surfaces exposed to view. Joints should not be visible. Construction and workmanship or architectural woodwork items shall conform to the requirements established by Quality Standards of the Architectural Woodworking Industry published by the Architectural Woodworking Institute.

D. All exterior trim, window sashes, soffits, fascias, rakes, louvers, caps, or any other finish surfaces that are installed as stained wood are to receive . .

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