

Oswald, Hank

From: Oswald, Hank
Sent: Thursday, February 14, 2019 8:11 AM
To: 'mquint@mitchellbest.com'
Cc: Williams, Jeffrey
Subject: B19000349_12228 Pleasant Springs Court
Attachments: Regan Property Lot 18_2014.pdf; Regan Property Lot 18_2015.pdf

Hello Marc:

Good morning. Building permit # **B19000349** (*12228 Pleasant Springs Court*) has been approved by the Health Department. As friendly reminder, I've attached water sample results from 2014 and 2015 regarding future sampling requirements and potential treatment to address the elevated Gross Alpha level in the well water supply.

Should you have any questions, please don't hesitate to ask.

Respectfully,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
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Columbia, MD 21045
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CONFIDENTIALITY NOTICE

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I. General Requirements

- A. The term "work" as used in these notes shall include all provisions as drawn or specified in these documents as well as all other provisions specifically included by the Owner in the form of drawings, specifications, and written instructions and approved by the Architect.
- B. Contractor shall visit the site to verify all plan and existing dimensions and conditions and shall notify the Architect in writing, of any discrepancies before proceeding with the work or shall be responsible for same.
- C. Contractor shall be familiar with provisions of all applicable codes and shall insure compliance of work to those codes.
- D. These documents do not include the necessary components for construction safety. Safety, care of adjacent properties during construction, compliance with state and federal regulations specified in the Owner/Contractor contract is, and shall be, the Contractor's responsibility.
- E. Contractor shall supervise and direct the work and shall be solely responsible for all construction means, methods, techniques, and safety procedures and for coordinating all portions of the work.
- F. If in the event of conflict between local, state, and national codes, the more stringent shall govern.
- G. AIA General Conditions of the Contract for Construction are a part of this project.
- H. All construction is to be in compliance with the following code: International Residential Code For One & Two Family Dwellings, 2015 Edition (As Amended By Montgomery and Howard County, MD)
- I. This project is an Owner/Builder project wherein the Owner is performing as the Contractor. The Owner is responsible for all construction means and methods as well as all compliance with building codes and other applicable laws, ordinances and regulations. The Architect is available to the Owner, however, all questions regarding this project must be directed to the Owner. The Architect assumes no responsibility for the means and methods of construction of the project, inasmuch as the Owner/Builder has full control and has assumed full responsibility.
- J. Use of these documents without written permission of the Architect is forbidden. © Copyright 2016 Sutton Yantis Associates Architects, P.C.
- K. Any and all drawings and specifications for sitework, plumbing supply or waste, electrical circuiting, and heating, ventilation, and air conditioning systems not contained in the "list of drawings" listed on this page are not a part of the professional services provided to the Owner by the Architect under their Agreement. Any discrepancies with these documents by any of the above listed services shown in documents by others should be indicated in writing to Architect immediately.
- L. Contractor shall be responsible for all noise attenuation requirements.

II. Structural Specifications

A. General Requirements

- The conditions and assumptions stated in these specifications shall be verified by the Contractor for conformance to local codes and conditions. In the event of a discrepancy between these specifications and local codes or conditions, the Contractor shall notify the Architect in writing of the discrepancy and special engineering requirements shall be applied to insure the building's structural integrity.
- These requirements may be superseded by more stringent information contained within the drawings. The more stringent shall be followed.
- Soil conditions shall conform to the following conditions:
Bearing capacity: Min. 2000psf, field verify, under all footings and slab.

Water Table: Min. 2'-0" below bottom of all concrete slabs and footings. Footings, foundations, walls and slabs shall not be placed on or in Marine Clay, Peat and other organic materials.
- Bottom of all footings shall extend to below frost line of the locality or to a minimum of 2'-6" below grade.
- Free draining granular backfill shall be used against foundation walls. Equivalent fluid pressure of backfill not to exceed 30 pcf. If backfill pressures exceed 30 pcf then foundation walls must be designed for actual equivalent fluid pressure.
- All backfill under slabs and footings shall be clean, porous soil compacted in 8" layers to 95% density. Where distance from edge of foundation wall exceeds 16", but is less than 4'-0", provide backfill as described above or reinforce with #4 rebar @ 2'-0" o.c., 1'-0" beyond edge of undisturbed soil and 1'-0" into foundation wall.

B. Concrete

- All concrete shall attain the following 28 day compressive strengths:
-Foundation Walls, Footings, Piers and Interior Slabs . . . 3000 psi
-All other slabs on grade (including garage slabs) . . . 3500 psi.
- Reinforcing steel shall conform to ASTM A-615, new billet, grade 60.
- Welded wire mesh shall conform to ASTM A-185, with minimum laps of 8".
- Maximum slump 5".
- All exposed exterior concrete shall be 6+/-1% air entrained or shall conform to ASTM C260.
- Walls with lateral earth pressures shall be shored or floor/roof construction shall be in place prior to backfilling.
- All concrete work shall be in accordance with ACI 318.

C. Steel

- All structural steel specified in these documents shall conform to ASTM A-36.
- Steel pipe shall conform to ASTM A-53.
- All welds shall comply with AWS standards.
- All bolts in bolted steel connections shall conform to ASTM A-325.
- All required steel anchor bolts, anchors straps, nails, caps, joist hangers shall be constructed of code approved galvanized or stainless steel. All metal nails, hangers, straps & bolts that are in direct contact with pressure treated lumber shall be fabricated from stainless steel or other non-corrosive metal approved by the Building Official.
- All connections shall conform to AISC standards.
- Fitch Beams: Unless noted otherwise, all steel fitch beams shall be assembled with 2 rows of 1/2" bolts @ 12" o.c. top and bottom, stagger rows 6". There shall be a bolt top and bottom 8" from each end.

II. STRUCTURAL SPECIFICATIONS (continued)

D. Wood

- All structural wood joists and headers shall be stressed graded #2 Hem Fir 19% M.C. in accordance with NDS by NFA, unless noted. All wood shall comply to the following minimum specifications:

#2 Hem Fir, 19% M.C.

F _b min:	980 psi repetitive use 850 psi single member use
E min:	1,300,000 psi
F _v min:	75 psi
F _c min:	1,250 psi
F _{cL} min:	405 psi

#2 Spruce Pine Fir 19% M.C. (#2 S.P.F.)

F _b min:	1,005 psi repetitive use 875 psi single member use
E min:	1,400,000 psi
F _v min:	70 psi

E min:	1,900,000 psi
F _v min:	285 psi
F _c min:	2,310 psi
F _{cL} min:	750 psi

All studs & wall plates in bearing walls shall conform to the following minimum specifications:

Stud Grade Spruce Pine Fir 19% M.C.

F _b min:	775 psi repetitive use 675 psi single use
E min:	1,200,000 psi
F _v min:	70 psi
F _c min:	675 psi
F _{cL} min:	425 psi

- All manufactured wood trusses and truss headers shall be designed by manufacturer according to Truss Plate Institute (TPI) and other requirements specified by local building authority. Manufacturer shall submit to Architect, shop drawings and calculations sealed by a Professional Engineer registered in the governing jurisdiction. Erection shall be in accordance with TPI "Building Component Safety Information (BCSI) Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses." Roof trusses and all bridging and/or lateral bracing required for structural integrity of roof truss system is to be designed by Manufacturer's drawings.
- All structural wood exposed to outside unprotected or bearing directly on concrete shall be pressure treated with approved materials to resist decay and infestation by termites and moisture.
- All wall sill plates shall be min. 2x4 and shall be anchored into foundation walls with 1/2" diameter anchor bolts min. 7" into poured in place concrete and 15" into grouted cmu. Minimum 2 anchors per section of plate and anchors shall be placed 12" from end of each plate. Maximum spacing of anchors 6'-0" on center for one and two story buildings and 4'-0" on center for buildings more than two stories in height or as required per local code. Anchor straps may be used as a substitute and shall be installed per manufacturers' specifications.
- All exterior wood framework supported on approved foundation walls shall be minimum 8" above finish grade.
- All wood framed exterior corners shall be laterally braced 4'-0" each direction from the corner with 1/2" exterior plywood or other code approved structural method.
- Provide continuous double top plate at all bearing stud walls.
- Provide blocking between all joists, 2 x 12 or greater, at intervals not to exceed 8'-0".
- All structural wood posts under beams and headers over 4'-0" span shall be min. 2-2x4 unless noted otherwise.
- All bearing partitions shall be 2x4 studs at 16" o.c. or as noted.
- Provide solid blocking at 4'-0" o.c. between rim joist and first interior parallel joist.
- All framing shall be detailed and installed in accordance with AF&PA Details for Conventional Wood Frame Construction
- All ceramic tile shall be installed per Tile Council of North America as specified in the Handbook for Ceramic Tile Installation. Contractor is responsible for providing sufficient movement joints, as per Tile Council of North America specifications, for all floor tile. Movement joint locations and details are not a part of these documents.
- Plywood subfloors shall be glued and nailed to Floor Joists with APA approved elastomeric structural adhesive and 8d common nails spaced at 6" o.c. at panel edges and 12" o.c. at intermediate supports.
- All wood posts labeled continuous (cont.) shall be continuous from under side of beam to concrete or steel bearing.

II. STRUCTURAL SPECIFICATIONS (continued)

- Manufactured Floor Trusses: Unless otherwise noted manufactured floor trusses shall be installed in accordance with manufacturers specifications and details.
- All plywood roof, floor and wall sheathing shall be APA approved.

E. Masonry

- Materials
Mortar: Type "S" ASTM C270
Hollow CMU: ASTM C-90
Face Brick: ASTM C-216
Grout Aggregated: ASTM C-404
- All masonry shall be protected from freezing for not less than 48 hours after installation and shall not be constructed below 40 degrees F without precautions necessary to prevent freezing. No anti-freeze admixtures shall be added to the mortar.
- Brick veneer shall be attached to wood frame with minimum #22 galvanized sheet gage corrosion-resistant corrugated metal ties min. 7/8" wide at vertical intervals max. 16" and horizontal intervals max 16". Provide weep holes at 2'-0" o.c. @ first course above grade and first course above steel lintels.
- Provide horizontal joint reinforcement (Durowall) in all masonry walls @ 8" o.c. unless otherwise specified.
- The top course of all masonry bearing walls shall be constructed of solid masonry units or grout filled hollow units or otherwise designed to insure adequate distribution of load.

requirements of BIA and NCMA.

d aesthetic size and type by #56 DH denotes a 2'-8" wide Contractor shall verify that e installed comply with local code past loads. ed by local code, shall be manufacturer's label, designating

enclosing habitable spaces as

sements and crawl spaces with dampproofing as specified by code at exterior face of wall.

- Flashing: Code approved corrosion resistive flashing shall be provided at all locations required by code in such manner as to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Similar flashings shall be installed at the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings; under and at the ends of masonry wood or metal copings and sills; continuously above all projecting wood trim at wall and roof intersections; under built-in gutters; at junctions of chimneys and roofs; and in all roof valleys and around all roof openings. All windows and doors shall be flashed in accordance with the manufacturers written instructions.
- Building Paper: When veneer of brick, clay tile, concrete, or natural or artificial stone are used, 15 pound felt or paper shall be attached to the sheathing with flashing whenever necessary to prevent moisture penetration behind the veneer. Approved water resistant sheathing may be substituted for building paper.

V. Other

- In locations required by local code, window opening limiting devices are to be installed by window manufacturer in compliance with code section R312.2.2.
- Residential Energy Efficiency compliance is per the Total UA Alternative Method per the 2015 International Energy Conservation Code for climate zone 4A. Refer to REScheck Compliance Certificate and to "N" sheets (Energy Plans) for additional information.
- NOTE: Structural Design is for Gravity Loads ONLY. Structural Engineering for Lateral Load Design requires specifications per Building Code is NOT included in these documents and shall be provided by others.
- Whole house ventilation system to be installed (by others).

List of Drawings

1 General Notes & Specifications	10 Prt'l Upper Floor Plan W/Alt. Elev "B"	29 Prt'l Left & Right Side Elevations w/Opt. Alt. Elevation "C"	E3 Upper Floor Electrical Plan
RC REScheck Compliance Certificate	11 Prt'l Fndn/Bsm't Fir Plan W/Alt.Elev "C"	30 Alternate Front Elevation "D"	E3A Prt'l Upper Floor Electrical Plan
D1 Foundation/Framing Details	11A Prt'l Fndn/Bsm't Fir Plan W/Alt.Elev "C"	31 Prt'l Left & Right Side Elevations w/Opt. Alt. Elevation "D"	W/Opt. Attic and Opt. Attic Floor Electrical Plan
D2 Foundation/Framing Details	12 Prt'l Lower Floor Plan W/Alt. Elev "C"	32 Lower Floor Framing Plan	E3B Prt'l Bsm't, Lower & Upper Floor Electrical Plans W/Opt. 6 Ft. Extension
AW Aweaway Details	12A Prt'l Lower Floor Plan W/Alt. Elev "C"	33 Upper Floor Framing Plan	E4 Prt'l Bsm't, Lower & Upper Floor Electrical Plans W/Opt. 8 Ft. Side Extension
TR1 Trim Details	13 Prt'l Upper Floor Plan W/Alt. Elev "C"	34 Roof Framing Plan	E5 Prt'l Bsm't & Lower Floor Electrical Plans W/Opt. 3 Car Side-load Garage
TR2 Trim Details	13A Prt'l Upper Floor Plan W/Alt. Elev "C"	35 Prt'l Lower, Upper & Roof Framing Plans W/Opt. Bft. Side Extension	E6 Prt'l Bsm't & Lower Floor Electrical Plans W/Opt. 3 Car Side-load Garage & Opt. Home Office/In-Low Suite
TR3 Trim Details	14 Prt'l Fndn/Bsm't & Lower Floor Plan W/Alt. Elev. "D"	36 Prt'l Lower & Roof Framing Plans w/Opt. 3 Car Side-load Garage	E6A Prt'l Lower & Upper Floor Electrical W/Opt. Bonus Room Over Garage
TR4 Trim Details	15 Prt'l Upper Floor Plan W/Alt. Elev "D"	37 Prt'l Lower, Upper & Roof Framing Plans w/Opt. 3 Car Side-load Garage	E7 Prt'l Lower Floor Electrical Plans W/Opt. Rear Covered Porch
TR5 Trim Details	16 Building Section "A"	38 Prt'l Roof Framing Plan W/Opt. Rear Covered Porch & Deck Framing Plan	E8 Prt'l Bsm't & Lower Floor Electrical Plans W/Alt. Elevation "B"
TR6 Trim Details	17 Building Section "B"	39 Prt'l Lower & Upper Floor Framing Plans W/Alt. Elevation "B"	E9 Prt'l Upper Floor Electrical Plan W/Alt. Elevation "B"
TR7 Trim Details	18 Building Section "C" & "D"	40 Prt'l Roof Framing Plan W/Alt. Elevation "B"	E10 Prt'l Bsm't Electrical Plan W/Alt. Elevation "C"
TR8 Trim Details	19 Front Elevation "A"	41 Prt'l Lower Floor Framing W/Alt. Elevation "C"	E11 Prt'l Lower Floor Electrical Plan Plans W/Alt. Elevation "C"
TR9 Trim Details	20 Rear Elevation	42 Prt'l Upper Floor Framing W/Alt. Elevation "C"	E12 Prt'l Upper Floor Electrical Plan Plans W/Alt. Elevation "C"
TR10 Trim Details	21 Left Side Elevation	43 Prt'l Roof Framing Plan W/Alt. Elevation "C"	E13 Prt'l Bsm't & Lower Floor Electrical Plan W/Alt. Elevation "D"
TR11 Trim Details	22 Right Side Elevation	44 Prt'l Lower & Upper Floor Framing W/Alt. Elevation "D"	E14 Prt'l Upper Floor Electrical Plan Plan W/Alt. Elevation "D"
TR12 Trim Details	22A Prt'l Left & Right Side Elevations w/Opt. 4'-0" Family Room Extension	45 Prt'l Roof Framing Plan W/Alt. Elev "D"	N1 Energy Plans
TR13 Trim Details	23 Prt'l Front & Right Side Elevations w/Opt. Bft Side Extension	E1 Basement Electrical Plan	N2 Energy Plans
TR14 Trim Details	24 Prt'l Front, Rear & Left Side Elev. w/Opt. 3 Car Side-load Garage	E2 Lower Floor Electrical Plan	N3 Energy Section "A" & "B"
TR15 Trim Details	24A Prt'l Rear & Left Side Elevations w/Opt. 3 Car Side-load Garage & W/Opt. Bonus Room		
TR16 Trim Details	25 Prt'l Rear & Right Side Elevations w/Opt. Rear Covered Porch		
TR17 Trim Details	26 Alternate Front Elevation "B"		
TR18 Trim Details	27 Prt'l Left & Right Side Elevations w/Opt. Alt. Elevation "B"		
TR19 Trim Details	28 Alternate Front Elevation "C"		

Symbols

⊕	Duplex Outlet	⊕	One Way Switch	⊕	Cont. Running Mech Fan
⊕	Duplex Outlet, Weather Proof on GFI circuit	⊕	Three Way Switch		
⊕	Duplex Outlet, Floor Mounted	⊕	Four Way Switch		
⊕	Duplex Outlet, Switch Operated	⊕	Switch w/ Rheostat		
⊕	Range Outlet	⊕	Smoke Detector		
⊕	Gas Outlet	⊕	Chime		
⊕	Ceiling Mounted Incandescent	⊕	Bathroom Exhaust Fan		
⊕	Junction Box	⊕	Television Outlet		
⊕	Eyeball Light	⊕	Telephone Outlet		
⊕	Wall Washer Light (Recessed)	⊕	Medicine Cabinet		
⊕	Recessed Light	⊕	Frost Proof Hose Bib		
⊕	2 Fluorescent Light	⊕	Recessed Waterproof Light		
⊕	4 Fluorescent Light	⊕	Dedicated Circuit Outlet		
⊕	Exterior Flood Lights	⊕	Steel Angle (Lintel)		
⊕	Wall Mounted Incandescent	⊕	Structural Post		
⊕	Pull Switch Light	⊕	Smoke/Carbon Monoxide Detector		
		⊕	Fan/Light		

List of Abbreviations

ADJ.	Adjustable	MC	Medicine Cabinet
A.S.F.	Above Subfloor	MFG.	Manufacturing
BF	Bifold	O.A.	Overall
BM	Beam	O.C.	On Center
B.O.J.	Bottom of Joist	OPT.	Optional
B.W.L.	Braced Wall Line	PART.	Partial
CLG	Ceiling	PLYWD	Plywood
CMU	Concrete Masonry Unit	P.T.	Pressure Treated
C.O.	Cased Opening	R/A	Return Air
COL.	Column	R.C.	Rough Cut
CONC.	Concrete	REF	Refrigerator
CONT.	Continuous	R/O	Range Oven
CS	Casement	SF	Square Feet
CVAC	Central Vacuum	SHWR	Shower
DBL.	Double	SIM.	Similar
DES.	Design	S.L.	Sliding Door/Window Standard
DH	Double Hung	STD.	Steel
DTL.	Detail	S&P	Shelf & Pole
DW	Dishwasher	S.V.B.	Solid Valley Blocking
FD	Floor Drain/French Door	T&G	Tongue & Groove
F.P.	Fireplace	T.B.D.	To Be Determined
FTG.	Footing	T.O.S.	Top of Slab
GFI	Ground Fault Circuit Interrupter	T.O.W.	Top of Wall
GPDW	Gypsum Drywall	TR	Trim
HD,HGHT	Window Head Height	TYP.	Typical
HDR	Header	V.I.F.	Verify In Field
HFL	Heat/Fan/Light	WD	Wood
HW	Hot Water Heater	W/O	Wall Oven
INSUL.	Insulation	W.W.M.	Welded Wire Mesh
L.I.F.	Locate In Field		
L.T.	Laundry Tub		

Area Calculations

Area Calculations include gross floor area to exterior face of wall for all conditioned spaces and exclude upper levels of multi-story spaces.

	LOWER	UPPER	BASEMENT
BASE HOUSE	1844 SF	1842 SF	102 SF
OPT. FINISHED BASEMENT			+1525 SF
OPT. 2' FRONT EXTENSION	+76 SF	+76 SF	+77 SF
OPT. 8' SIDE EXTENSION	+97 SF	+97 SF	+104 SF
OPT. 3-CAR SIDELOAD GARAGE	+140 SF		
OPT. HOME OFFICE/IN-LAW SUITE W/3-CAR SIDELOAD GARAGE		+372 SF	
ALL ELEV. C	+76 SF	+60 SF	+77 SF
BONUS ROOM OVER GARAGE		+547 SF	
OPT. 6'-0" FAMILY DINING EXTENSION	+77 SF	+77 SF	+77 SF
OPT. 4'-0" FAMILY ROOM EXTENSION	+92 SF	+92 SF	+92 SF
OPT. ATTIC			+697 SF
OPT. BAY WINDOW	+16 SF		
MAX. SQ. FOOTAGE FOR BASE HOUSE W/ ALL AVAILABLE OPTIONS: 7,747 SF			

Date	REV.	BY	DATE
	01/10/16	JM/CB	01/10/16
	02/03/16	JM/CB	02/03/16
	02/09/16	JM/CB	02/09/16
	02/16/16	JM/CB	02/16/16
	02/23/16	JM/CB	02/23/16
	03/02/16	JM/CB	03/02/16
	03/09/16	JM/CB	03/09/16
	03/16/16	JM/CB	03/16/16
	03/23/16	JM/CB	03/23/16

Project Number: 0706-01

HAWTHORNE MITCHELL BEST HOMES

Architect

SUTTON YANTIS ASSOCIATES ARCHITECTS

9000 PARKWAY BLVD. THE 703.758.9775
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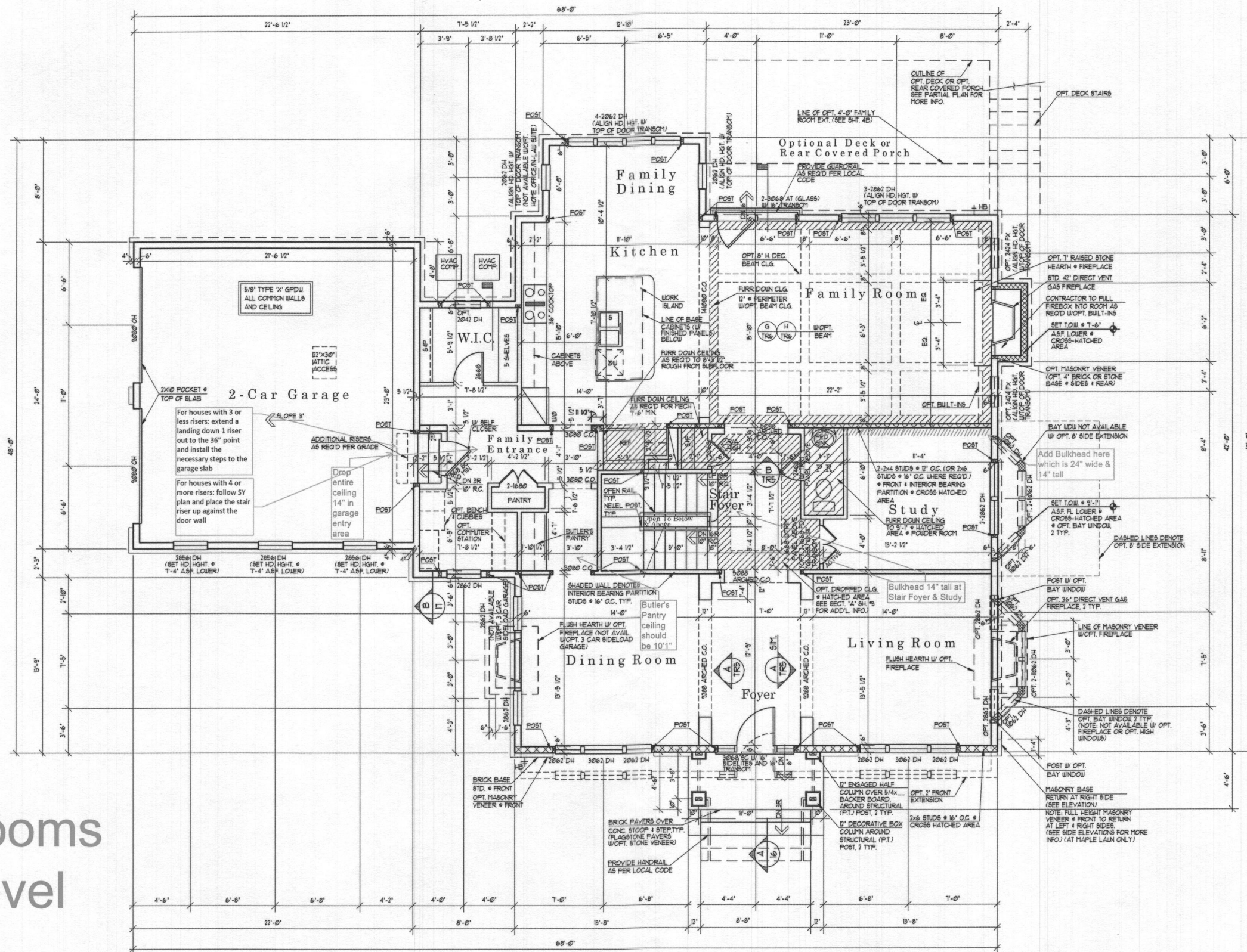
SUTTON YANTIS ASSOCIATES ARCHITECTS

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Sheet Number

1

No bedrooms
on this level



LOWER FLOOR PLAN

W/ELEVATION "A"

1/4" = 1'-0"

UNLESS OTHERWISE NOTED ALL INTERIOR PARTITIONS TO BE 3/4"
UNLESS OTHERWISE NOTED WINDOW HEAD HEIGHT TO BE 8'-0" A.S.F.
UNLESS OTHERWISE NOTED PROVIDE 2-2x6 POSTS BETWEEN ALL MULTIPLE WINDOWS.

Date	REV.	BY	CHK.
AC. 01/01/01	01	AC. 01/01/01	AC. 01/01/01
AC. 01/01/01	02	AC. 01/01/01	AC. 01/01/01
AC. 01/01/01	03	AC. 01/01/01	AC. 01/01/01
CA. 01/01/01	04	CA. 01/01/01	CA. 01/01/01
REV. 01/01/01	05	REV. 01/01/01	REV. 01/01/01
REV. 01/01/01	06	REV. 01/01/01	REV. 01/01/01
REV. 01/01/01	07	REV. 01/01/01	REV. 01/01/01

Project Number: 0706-03

HAWTHORNE
MITCHELL BEST HOMES

Architect

SUTTON
YANTIS
ASSOCIATES

ARCHITECTS

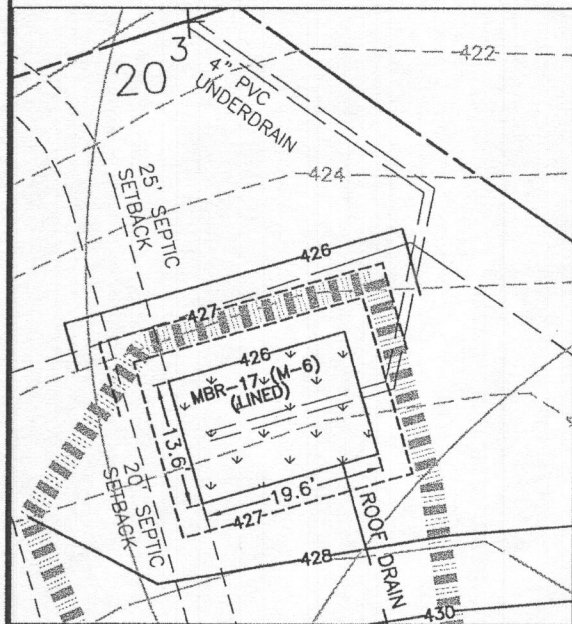
1000 W. BROAD ST. SUITE 200
VIRGINIA BEACH, VA 22162
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Sheet Number

3

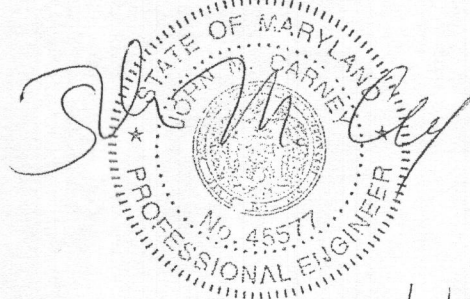
LEGEND

- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS
- PROPOSED CONTOURS
- LIMIT OF WETLANDS
- 25' WETLANDS BUFFER
- CENTERLINE OF STREAM
- STREAM BUFFER
- PROPOSED STRUCTURE
- SEPTIC RESERVE AREA
- SWM DRAINAGE DIVIDE

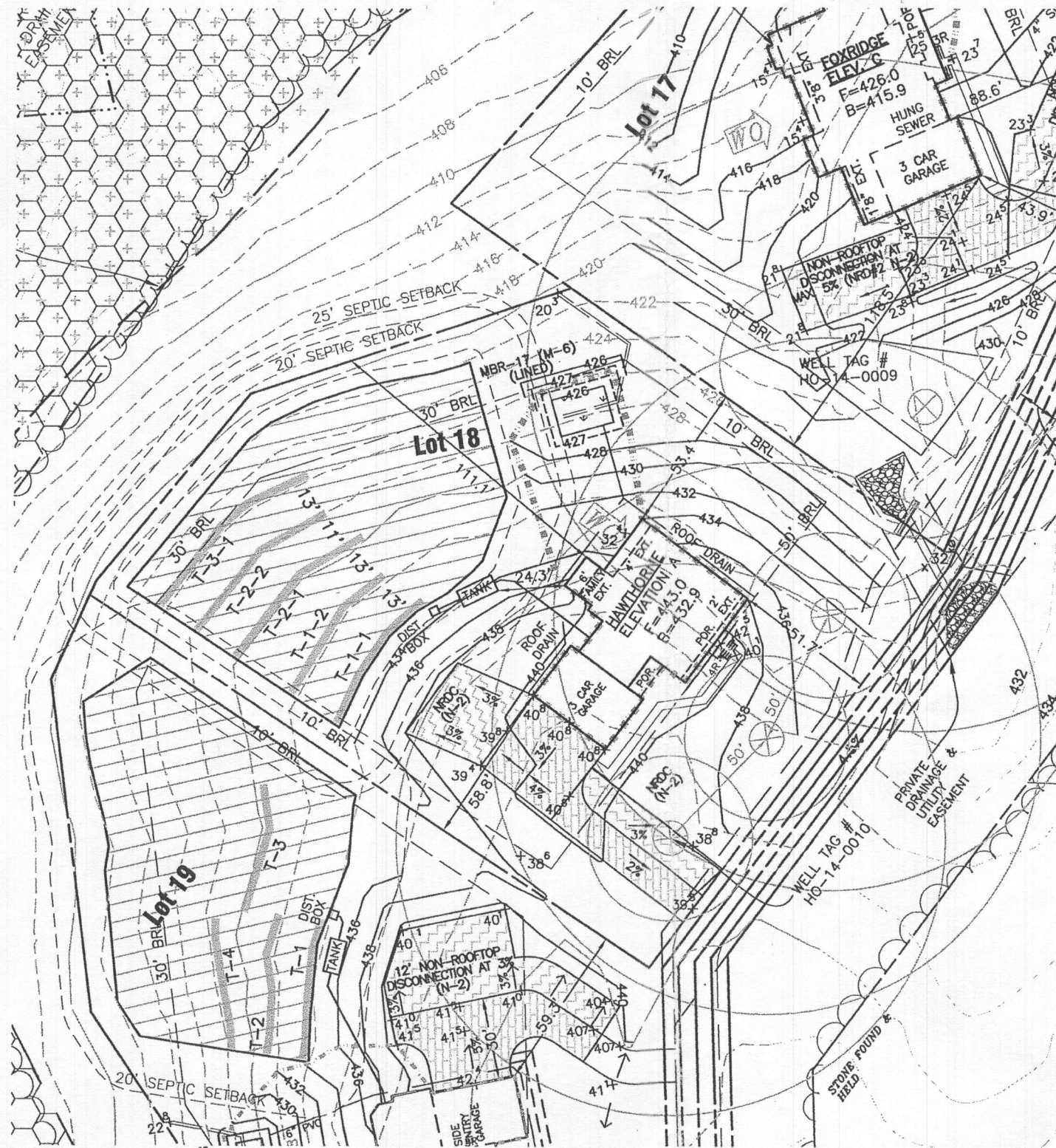


MBR DETAIL
1" = 20'

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 45577, Expiration Date: 06-08-2020.



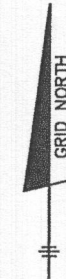
1/8/19



BUILDING PERMIT PLAN NOTES:

1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR REGAN PROPERTY, PLAT Nos. 23063-23074. REFER TO THE PLATS FOR LOT DIMENSIONS, LOT AREAS, ALL EASEMENTS AND CONDITIONS.
2. SEDIMENT AND EROSION CONTROLS WERE APPROVED BY HOWARD SOIL CONSERVATION DISTRICT UNDER A GRADING PLAN AND MODIFIED FOR THIS SPECIFIC HOUSE.
3. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM THE APPROVED ROAD CONSTRUCTION PLANS AND TOPOGRAPHIC INFORMATION PROVIDED BY BENCHMARK ENGINEERING, INC., ON OR ABOUT JANUARY, 2012.
4. ALL SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS SITE SHALL COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
5. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED ROAD CONSTRUCTION PLANS EXCEPT AS WAIVED.
6. THE EXISTING WELL SHOWN ON THIS PLAN, HO-14-0010, HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC., AND IS ACCURATELY SHOWN.
7. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
8. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
9. STORMWATER MANAGEMENT FOR THIS LOT WAS DESIGNED AND PROVIDED BY ONE MICRO-BIORETENTION FACILITY (MDE M-6) AND TWO NON-ROOFTOP DISCONNECTION (MDE N-2).
10. MICRO-BIORETENTION SHALL HAVE EITHER A 4" OR 6" ROOF LEADER DEPENDING ON ROOF-TOP AREA.

PLAN VIEW
1" = 50'



NOTE:
UNLESS OTHERWISE NOTED, THE FIRST RUN OF PVC ROOF LEADER SHALL BE 4" AND SHALL INCREASE TO AT LEAST 6" AFTER ANY CONFLUENCE OF 4" PIPES.

OWNER/BUILDER:		BENCHMARK ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 ▲ (F) 410-465-6644 WWW.BEI-CVLENGINEERING.COM	
PROJECT:		REGAN PROPERTY LOT 18	
LOCATION:		12228 PLEASANT SPRINGS COURT HIGHLAND, MD 20777 TAX MAP No. 34 - BLOCK No. 24 - PARCEL No. 200 5TH ELECTION DISTRICT, TAX ID NUMBER: 05 597451	
TITLE:		BUILDING PERMIT PLAN	
HOUSE TYPE:		HAWTHORNE - ELEVATION A	
DATE:	JANUARY, 2019	PROJECT NO.	2171
SCALE:	AS SHOWN	DRAWING	1 OF 2

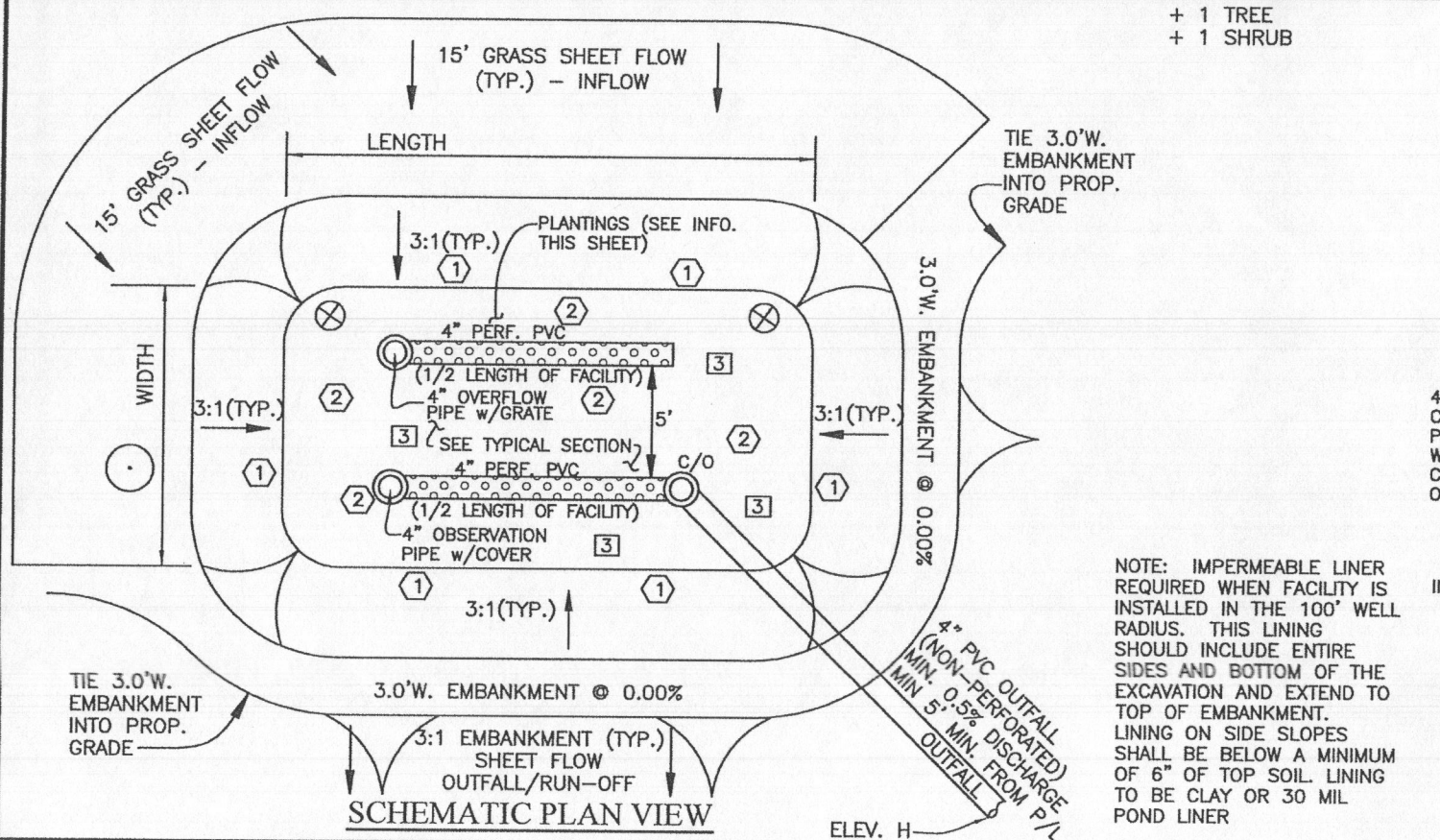
ESD STORMWATER MANAGEMENT SUMMARY TABLE

Practice	#	DA to practice	Imp Area to practice	Qe= 0.27 inches			ESDv= 592 cf			Rv= 0.23			Ownership
				Required	Provided	2% DA?	Required	Provided	Pe Provided	Required	Provided		
(M-6) MicroBioretention	MBR-17	5,606	3,109	112	267	PASS	462	500	1.2			Private	
(N-2) Disc. of Non-Rooftop Runoff	NDC-1	927	1,043					78	1.0		78	Private	
(N-2) Disc. of Non-Rooftop Runoff	NDC-2	691	707					53	1.0		53	Private	
Total Treated		7,224	4,859	112	267		592	631	1.3	128	131		
Site Total		26,003	5,130										

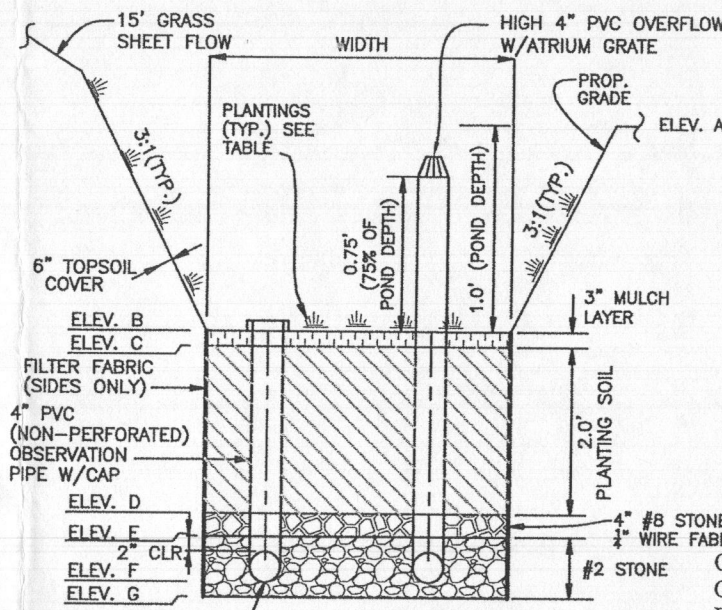
ON-LOT BIORETENTION DIMENSIONS

FACILITY	A	B	C	D	E	F	G	H	LENGTH	WIDTH	FILTER (Af)	PLANTINGS			LINER
												1	2	3	
MBR	427.00	426.00	425.75	423.75	423.42	422.92	422.09	420.30	19.6	13.6	267	59	59	30	YES

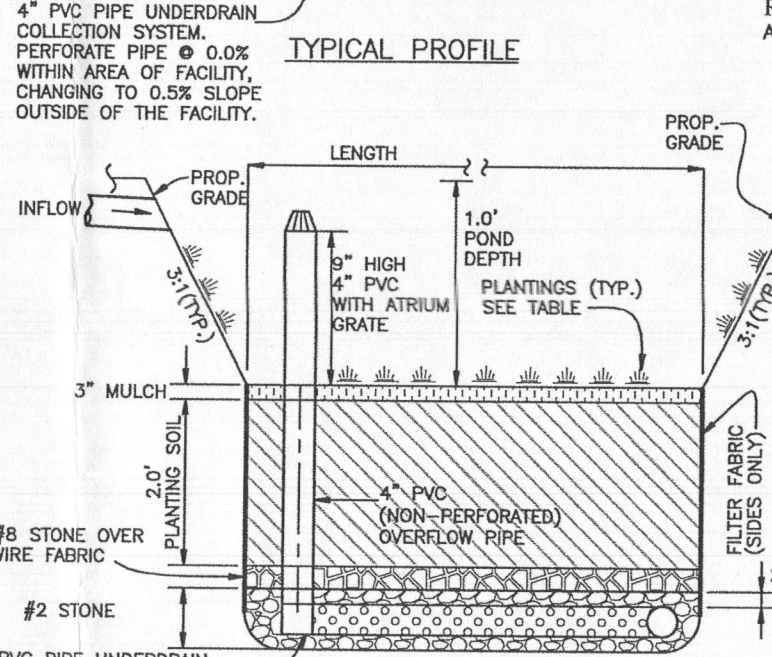
+ 1 TREE
+ 1 SHRUB



NOTE: IMPERMEABLE LINER REQUIRED WHEN FACILITY IS INSTALLED IN THE 100' WELL RADIUS. THIS LINING SHOULD INCLUDE ENTIRE SIDES AND BOTTOM OF THE EXCAVATION AND EXTEND TO TOP OF EMBANKMENT. LINING ON SIDE SLOPES SHALL BE BELOW A MINIMUM OF 6" OF TOP SOIL. LINING TO BE CLAY OR 30 MIL POND LINER



TYPICAL PROFILE



TYPICAL SECTION
MICRO-BIORETENTION DETAILS
NOT TO SCALE

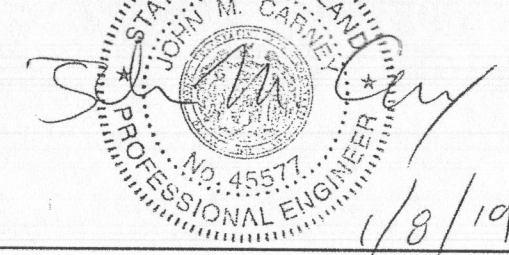
OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

- MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 45577, Expiration Date: 06-08-2020.



OWNER/BUILDER:
MB HIGHLAND RESERVE, LLC
1686 EAST GUDE DRIVE
ROCKVILLE, MD 20850
301-762-9511

BENCHMARK
ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE SUITE 315
ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
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MATERIALS & SPECIFICATIONS FOR MICRO-BIORETENTION

MATERIAL	SPECIFICATION	SIZE	NOTES:
PLANTINGS	SEE APPENDIX A; TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
PLANTING SOIL (2.0' TO 4.0' DEEP)	LOAMY SAND 60-65% COMPOST 35-40% OR SANDY LOAM 30% COARSE SAND 30% & COMPOST 40%	N/A	USDA SOIL TYPES: LOAMY SAND OR SANDY LOAM; CLAY CONTENT <5%
ORGANIC CONTENT	MIN 10% BY DRY WEIGHT ASTM D 2974		
MULCH	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM, NO PINE OR WOOD CHIPS
GEOTEXTILE (CLASS "C")		N/A	PE TYPE 1 NONWOVEN
GEOTEXTILE (1/4" WIRE MESH)		1/4" WIRE MESH	1/4" WIRE MESH
UNDERDRAIN GRAVEL	AASHTO M-43	NO. 57 OR NO. 6 0.375" TO 0.750"	
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID SCH.40 PVC, SDR35 OR HDPE	3/8" PERF. @ 6" O/C, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES, NOT NECESSARY UNDERNEATH PIPES. PIPE SHALL BE WRAPPED WITH 1/4-INCH GALVANIZED HARDWARE CLOTH
IMPERVIOUS LINER	ASTM-D-4833 (THICKNESS) ASTM-D-412 (TENSILE STRENGTH 1,100 LB., ELONGATION 200%) ASTM-D-624 (TEAR RESISTANCE - 150 LB./IN) ASTM-D-471 (WATER ADSORPTION: +8 TO -2% MASS)	30 MIL. THICK	LINER TO BE ULTRAVIOLET RESISTANT. A GEOTEXTILE FABRIC SHOULD BE USED TO PROTECT THE LINER FROM PUNCTURE.
GEOTEXTILE (BELOW IMPERV. LINER)	ASTM-D-4833 (PUNCTURE STRENGTH 125LB) ASTM-D-4632 (TENSILE STRENGTH 300 LB.)		

MICROBIORETENTION PLANTING SCHEDULE

- (PLANTING SPECIES AND DENSITY CAN BE CHANGED OR SUBSTITUTED BY A LANDSCAPE ARCHITECT OR QUALIFIED DESIGNER)
- IRIS FULVA (COPPER IRIS) (1 PER SY)
 - LOBELIA CARDINALIS (CARDINAL FLOWER) (1 PER SY)
 - RUDBECKIA SUBTOMENTOSA (SWEET CONEFLOWER) (1 PER 2 SY)
 - CALLUNA VULGARIS (HEATHER) (1 PER FACILITY)
 - ACER GINNALA (ARMUR MAPLE) (1 PER FACILITY)

MICROBIORETENTION PLANTING DATA

- PLANTINGS WITHIN THE PONDING AREA OF THE FACILITY ARE TO BE OF A MEDIUM TO HIGH WATER TOLERANCE
- PLANTINGS ALONG THE PERIMETER (BERM) AREA OF THE FACILITY ARE TO BE OF A LOW TO MEDIUM WATER TOLERANCE
- AVOID PLANTINGS WITH EXCESSIVE ROOT MASS IN POND AREA OF THE RAIN GARDEN NEAR O.B. PIPE AND UNDERDRAIN.

PROJECT:	REGAN PROPERTY LOT 18	
LOCATION:	12228 PLEASANT SPRINGS COURT HIGHLAND, MD 20777 TAX MAP No. 34 - BLOCK No. 24 - PARCEL No. 200 5TH ELECTION DISTRICT, TAX ID NUMBER: 05 597451	
TITLE:	BUILDING PERMIT & STORMWATER MANAGEMENT NOTES & DETAILS	
HOUSE TYPE:	HAWTHORNE - ELEVATION A	
DATE:	JANUARY, 2019	PROJECT NO. 2171
SCALE:	NOT TO SCALE	DRAWING 2 OF 2

I. General Requirements

- A. The term "work" as used in these notes shall include all provisions as drawn or specified in these documents as well as all other provisions specifically included by the Owner in the form of drawings, specifications, and written instructions and approved by the Architect.
- B. Contractor shall visit the site to verify all plan and existing dimensions and conditions and shall notify the Architect in writing, of any discrepancies before proceeding with the work or shall be responsible for same.
- C. Contractor shall be familiar with provisions of all applicable codes and shall insure compliance of work to those codes.
- D. These documents do not include the necessary components for construction safety. Safety, care of adjacent properties during construction, compliance with state and federal regulations specified in the Owner/Contractor contract is, and shall be, the Contractor's responsibility.
- E. Contractor shall supervise and direct the work and shall be solely responsible for all construction means, methods, techniques, and safety procedures and for coordinating all portions of the work.
- F. If in the event of conflict between local, state, and national codes, the more stringent shall govern.
- G. AIA General Conditions of the Contract for Construction are a part of this project.
- H. All construction is to be in compliance with the following code:
International Residential Code For One & Two Family Dwellings, 2015 Edition (As Amended By Montgomery and Howard County, MD)
- I. This project is an Owner/Builder project wherein the Owner is performing as the Contractor. The Owner is responsible for all construction means and methods as well as all compliance with building codes and other applicable laws, ordinances and regulations. The Architect is available to the Owner, however, all questions regarding this project must be directed to the Owner. The Architect assumes no responsibility for the means and methods of construction of the project, inasmuch as the Owner/Builder has full control and has assumed full responsibility.
- J. Use of these documents without written permission of the Architect is forbidden.
© Copyright 2015 Sutton Yantis Associates Architects, P.C.
- K. Any and all drawings and specifications for sitework, plumbing supply or waste, electrical circuiting, and heating, ventilation, and air conditioning systems not contained in the "list of drawings" listed on this page are not a part of the professional services provided to the Owner by the Architect under their Agreement. Any discrepancies with these documents by any of the above listed services shown in documents by others should be indicated in writing to Architect immediately.
- L. Contractor shall be responsible for all noise attenuation requirements.

II. Structural Specifications

A. General Requirements

- 1. The conditions and assumptions stated in these specifications shall be verified by the Contractor for conformance to local codes and conditions. In the event of a discrepancy between these specifications and local codes or conditions, the Contractor shall notify the Architect in writing of the discrepancy and special engineering requirements shall be applied to insure the building's structural integrity.
- 2. These requirements may be superseded by more stringent information contained within the drawings. The more stringent shall be followed.
- 3. Soil conditions shall conform to the following conditions:
Bearing capacity: Min. 2000psf, field verify, under all footings and slab.

Water Table: Min. 2'-0" below bottom of all concrete slabs and footings. Footings, foundations, walls and slabs shall not be placed on or in Marine Clay, Peat and other organic materials.
- 4. Bottom of all footings shall extend to below frost line of the locality or to a minimum of 2'-6" below grade.
- 5. Free draining granular backfill shall be used against foundation walls. Equivalent fluid pressure of backfill not to exceed 30 pcf. If backfill pressures exceed 30 pcf then foundation walls must be designed for actual equivalent fluid pressure.
- 6. All backfill under slabs and footings shall be clean, porous soil compacted in 8" layers to 95% density. Where distance from edge of foundation wall exceeds 16", but is less than 4'-0", provide backfill as described above or reinforce with #4 rebar @ 2'-0" o.c., 1'-0" beyond edge of undisturbed soil and 1'-0" into foundation wall.

B. Concrete

- 1. All concrete shall attain the following 28 day compressive strengths:
-Foundation Walls, Footings, Piers and Interior Slabs . . . 3000 psi
-All other slabs on grade (including garage slabs) . . . 3500 psi.
- 2. Reinforcing steel shall conform to ASTM A-615, new billet, grade 60.
- 3. Welded wire mesh shall conform to ASTM A-185, with minimum laps of 8".
- 4. Maximum slump 5".
- 5. All exposed exterior concrete shall be 6+/-1% air entrained or shall conform to ASTM C260.
- 6. Walls with lateral earth pressures shall be shored or floor/roof construction shall be in place prior to backfilling.
- 7. All concrete work shall be in accordance with ACI 318.

C. Steel

- 1. All structural steel specified in these documents shall conform to ASTM A-36.
- 2. Steel pipe shall conform to ASTM A-53.
- 3. All welds shall comply with AWS standards.
- 4. All bolts in bolted steel connections shall conform to ASTM A-325.
- 5. All required steel anchor bolts, anchors straps, nails, caps, joist hangers shall be constructed of code approved galvanized or stainless steel. All metal nails, hangers, straps & bolts that are in direct contact with pressure treated lumber shall be fabricated from stainless steel or other non-corrosive metal approved by the Building Official.
- 6. All connections shall conform to AISC standards.
- 7. Fitch Beams: Unless noted otherwise, all steel fitch beams shall be assembled with 2 rows of 1/2" bolts @ 12" o.c. top and bottom, stagger rows 6". There shall be a bolt top and bottom @ 8" from each end.

II. STRUCTURAL SPECIFICATIONS (continued)

D. Wood

- 1. All structural wood joists and headers shall be stressed graded #2 Hem Fir 19% M.C. in accordance with NDS by NFA, unless noted. All wood shall comply to the following minimum specifications:

#2 Hem Fir, 19% M.C.

F_b min: 980 psi repetitive use
850 psi single member use

E min: 1,300,000 psi

F_v min: 75 psi

F_c min: 1,250 psi

F_{c⊥} min: 405 psi

#2 Spruce Pine Fir 19% M.C. (#2 S.P.F.)

F_b min: 1,005 psi repetitive use
875 psi single member use

E min: 1,400,000 psi

F_v min: 70 psi

E min: 1,900,000 psi

F_v min: 285 psi

F_c min: 2,310 psi

F_{c⊥} min: 750 psi

All studs & wall plates in bearing walls shall conform to the following minimum specifications:

Stud Grade Spruce Pine Fir 19% M.C.

F_b min: 775 psi repetitive use
675 psi single use

E min: 1,200,000 psi

F_v min: 70 psi

F_c min: 675 psi

F_{c⊥} min: 425 psi

- 2. All manufactured wood trusses and truss headers shall be designed by manufacturer according to Truss Plate Institute (TPI) and other requirements specified by local building authority. Manufacturer shall submit to Architect, shop drawings and calculations sealed by a Professional Engineer registered in the governing jurisdiction. Erection shall be in accordance with TPI "Building Component Safety Information (BCSI) Guide to Good Practice for Handling, Installing, Restraint & Bracing of Metal Plate Connected Wood Trusses." Roof trusses and all bridging and/or lateral bracing required for structural integrity of roof truss system is to be designed by Manufacturer's drawings.
- 3. All structural wood exposed to outside unprotected or bearing directly on concrete shall be pressure treated with approved materials to resist decay and infestation by termites and moisture.
- 4. All wall sill plates shall be min. 2x4 and shall be anchored into foundation walls with 1/2" diameter anchor bolts min. 7" into poured in place concrete and 15" into grouted cmu. Minimum 2 anchors per section of plate and anchors shall be placed 12" from end of each plate. Maximum spacing of anchors 6'-0" on center for one and two story buildings and 4'-0" on center for buildings more than two stories in height or as required per local code. Anchor straps may be used as a substitute and shall be installed per manufacturers' specifications

- 5. All exterior wood framework supported on approved foundation walls shall be minimum 8" above finish grade.
- 6. All wood framed exterior corners shall be laterally braced 4'-0" each direction from the corner with 1/2" exterior plywood or other code approved structural method.
- 7. Provide continuous double top plate at all bearing stud walls.
- 8. Provide blocking between all joists, 2 x 12 or greater, at intervals not to exceed 8'-0".
- 9. All structural wood posts under beams and headers over 4'-0" span shall be min. 2-2x4 unless noted otherwise.
- 10. All bearing partitions shall be 2x4 studs at 16" o.c. or as noted.

- 11. Provide solid blocking at 4'-0" o.c. between rim joist and first interior parallel joist.
- 12. All framing shall be detailed and installed in accordance with AF&PA Details for Conventional Wood Frame Construction
- 13. All ceramic tile shall be installed per Tile Council of North America as specified in the Handbook for Ceramic Tile Installation. Contractor is responsible for providing sufficient movement joints, as per Tile Council of North America specifications, for all floor tile. Movement joint locations and details are not a part of these documents.
- 14. Plywood subfloors shall be glued and nailed to Floor Joists with APA approved elastomeric structural adhesive and 8d common nails spaced at 6" o.c. at panel edges and 12" o.c. at intermediate supports.
- 15. All wood posts labeled continuous (cont.) shall be continuous from under side of beam to concrete or steel bearing.

II. STRUCTURAL SPECIFICATIONS (continued)

- 16. Manufactured Floor Trusses: Unless otherwise noted manufactured floor trusses shall be installed in accordance with manufacturers specifications and details.
- 17. All plywood roof, floor and wall sheathing shall be APA approved.

E. Masonry

1. Materials

Mortar: Type "S" ASTM C270
Hollow CMU: ASTM C-90
Face Brick: ASTM C-216
Grout Aggregated: ASTM C-404

- 2. All masonry shall be protected from freezing for not less than 48 hours after installation and shall not be constructed below 40 degrees F without precautions necessary to prevent freezing. No anti-freeze admixtures shall be added to the mortar.
- 3. Brick veneer shall be attached to wood frame with minimum #22 galvanized sheet gage corrosion-resistive corrugated metal ties min. 7/8" wide at vertical intervals max. 16" and horizontal intervals max 16". Provide weep holes at 2'-0" o.c. @ first course above grade and first course above steel lintels.
- 4. Provide horizontal joint reinforcement (Durowall) in all masonry walls @ 8" o.c. unless otherwise specified.
- 5. The top course of all masonry bearing walls shall be constructed of solid masonry units or grout filled hollow units or otherwise designed to insure adequate distribution of load

requirements of BIA and NCMA.

d aesthetic size and type by #56 DH denotes a 2'-8" wide Contractor shall verify that e installed comply with local code ead by local code, shall be manufacturer's label, designating

enclosing habitable spaces as

sements and crawl spaces with

- 4. Flashing: Code approved corrosion resistive flashing shall be provided at all locations required by code in such manner as to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Similar flashings shall be installed at the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings; under and at the ends of masonry wood or metal copings and sills; continuously above all projecting wood trim at wall and roof intersections; under built-in gutters; at junctions of chimneys and roofs; and in all roof valleys and around all roof openings. All windows and doors shall be flashed in accordance with the manufacturers written instructions.
- 5. Building Paper: When veneer of brick, clay tile, concrete, or natural or artificial stone are used, 15 pound felt or paper shall be attached to the sheathing with flashing whenever necessary to prevent moisture penetration behind the veneer. Approved water resistant sheathing may be substituted for building paper.

V. Other

- 1. In locations required by local code, window opening limiting devices are to be installed by window manufacturer in compliance with code section R312.2.2.
- 2. Residential Energy Efficiency compliance is per the Total UA Alternative Method per the 2015 International Energy Conservation Code for climate zone 4A. Refer to REScheck Compliance Certificate and to "N" sheets (Energy Plans) for additional information.
- 3. NOTE: Structural Design is for Gravity Loads ONLY. Structural Engineering for Lateral Load Design requirements specified per Building Code is NOT included in these documents and shall be provided by others.
- 4. Whole house ventilation system to be installed (by others).

List of Drawings

1	General Notes & Specifications
RC	REScheck Compliance Certificate
D1	Foundation/Framing Details
D2	Foundation/Framing Details
AW	Areaway Details
TR1	Trim Details
TR1A	Trim Details
TR2	Trim Details
TR3	Trim Details
TR4	Trim Details
TR5	Trim Details
TR6	Trim Details
TR7	Trim Details
DK	Deck Details
2	Fndn/Bsmt Plan W/Elev "A"
3	Lower Floor Plan W/Elev "A"
4	Upper Floor Plan W/Elev "A"
4A	Alt. Upper Floor w/Opt. Attic & Opt. Attic
4B	Prt'l Fnd/Bmt, Lower & Upper Fir Pln w/Opt. 8ft Extension & Opt. 4'-0" Family Room Extension
5	Prt'l Fndn/Bsmt Plan, Lower & Upper Floor Plans W/Opt. 8ft Side Extension
6	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Attached 3 Car Garage
7	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Attached 3 Car Garage and W/Opt. Home Office/In-Low Suite
7A	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Attached 3 Car Garage and W/Opt. Bonus Room over Garage
8	Prt'l Fndn & Lower Floor Plan W/Opt. Rear Covered Porch
9	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
10	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
11	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
12	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
13	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
14	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
15	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
16	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
17	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
18	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
19	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
20	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
21	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
22	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
23	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
24	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
24A	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
25	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
26	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
27	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch
28	Prt'l Fndn/Bsmt & Lower Floor Plan W/Opt. Rear Covered Porch

10	Prt'l Upper Floor Plan W/Alt. Elev "B"
11	Prt'l Fndn/Bsmt Fir Pln W/Alt.Elev "C"
11A	Prt'l Fndn/Bsmt Fir Pln W/Alt.Elev "C"
12	Prt'l Lower Floor Plan W/Alt. Elev "C"
12A	Prt'l Lower Floor Plan W/Alt. Elev "C"
13	Prt'l Upper Floor Plan W/Alt. Elev "C"
13A	Prt'l Upper Floor Plan W/Alt. Elev "C"
14	Prt'l Fndn/Bsmt & Lower Floor Plan W/Alt. Elev "D"
14A	Prt'l Upper Floor Plan W/Alt. Elev "D"
16	Building Section "A"
17	Building Section "B"
18	Building Section "C" & "D"
18A	Truss Diagrams
19	Front Elevation "A"
20	Rear Elevation
21	Left Side Elevation
22	Right Side Elevation
22A	Prt'l Left & Right Side Elevations w/ w/Opt. 4'-0" Family Room Extension
23	Prt'l Front & Right Side Elevations w/Opt. 8ft Side Extension
24	Prt'l Front, Rear & Left Side Elev. w/Opt. 3 Car SideLoad Garage
24A	Prt'l Rear & Left Side Elevations w/Opt. 3 Car SideLoad Garage & w/Opt. Bonus Room
25	Prt'l Rear & Right Side Elevations w/Opt. Rear Covered Porch
26	Alternate Front Elevation "B"
27	Prt'l Left & Right Side Elevations w/Opt. Alt. Elevation "B"
28	Alternate Front Elevation "C"

29	Prt'l Left & Right Side Elevations w/Opt. Alt. Elevation "C"
30	Alternate Front Elevation "D"
31	Prt'l Left & Right Side Elevations w/Opt. Alt. Elevation "D"
32	Lower Floor Framing Plan
33	Upper Floor Framing Plan
34A	Roof Framing Plan
34A	Roof & Fir Frmg Pln W/Opt. Attic
35	Prt'l Lower, Upper & Roof Framing Plans W/Opt. 8ft Side Extension
36	Prt'l Lower & Roof Framing Plans w/Opt. 3 Car SideLoad Garage
37	Prt'l Lower, Upper & Roof Framing Plans w/Opt. 3 Car SideLoad Garage & Opt. Home Office/In-Low Suite
37A	Prt'l Upper Floor & Roof Framing Plan W/Opt. Bonus Room over Garage
38	Prt'l Roof Framing Plan W/Opt. Rear Covered Porch & Deck Framing Plan
39	Prt'l Lower & Upper Floor Framing Plans W/Alt. Elevation "B"
40	Prt'l Roof Framing Plan W/Alt. Elevation "B"
41	Prt'l Lower Floor Framing W/Alt. Elevation "C"
42	Prt'l Upper Floor Framing W/Alt. Elevation "C"
43	Prt'l Roof Framing Plan W/Alt. Elevation "C"
44	Prt'l Lower & Upper Floor Framing W/Alt. Elevation "D"
45	Prt'l Roof Framing Plan W/Alt. Elev "D"
TJ	Truss Joist Details
E1	Basement Electrical Plan
E2	Lower Floor Electrical Plan

E3	Upper Floor Electrical Plan
E3A	Prt'l Upper Floor Electrical Plan W/Opt. Attic and Opt. Attic Floor Electrical Plan
E3B	Prt'l Bsmt, Lower & Upper Floor Electrical Plans W/Opt. 6 Ft. Extension
E4	Prt'l Bsmt, Lower & Upper Floor Electrical Plans W/Opt. 8 Ft. Side Extension
E5	Prt'l Bsmt. & Lower Floor Electrical Plans W/Opt. 3 Car SideLoad Garage
E6	Prt'l Bsmt. & Lower Floor Electrical Plans W/Opt. 3 Car SideLoad Garage & Opt. Home Office/In-Low Suite
E6A	Prt'l Lower & Upper Floor Electrical W/Opt. Bonus Room over Garage
E7	Prt'l Lower Floor Electrical Plan W/Opt. Rear Covered Porch
E8	Prt'l Bsmt. & Lower Floor Electrical Plans W/Alt. Elevation "B"
E9	Prt'l Upper Floor Electrical Plan W/Alt. Elevation "B"
E10	Prt'l Bsmt Electrical W/Alt. Elevation "C"
E11	Prt'l Lower Floor Electrical Plan W/Alt. Elevation "C"
E12	Prt'l Upper Floor Electrical Plan W/Alt. Elevation "C"
E13	Prt'l Bsmt & Lower Floor Electrical Plan W/Alt. Elevation "D"
E14	Prt'l Upper Floor Electrical Plan W/Alt. Elevation "D"
N1	Energy Plans
N2	Energy Plans
N3	Energy Section "A" & "B"

Symbols

⊖	Duplex Outlet	⊖	One Way Switch	⊖	Cont. Running Mech Fan
⊖	Duplex Outlet, Weather Proof on GFI circuit	⊖	Three Way Switch	⊖	
⊖	Duplex Outlet, Floor Mounted	⊖	Four Way Switch	⊖	
⊖	Duplex Outlet, Switch Operated	⊖	Switch w/ Rheostat	⊖	
⊖	Range Outlet	⊖	Smoke Detector	⊖	
⊖	Gas Outlet	⊖	Chime	⊖	
⊖	Ceiling Mounted Incandescent	⊖	Bathroom Exhaust Fan	⊖	
⊖	Junction Box	⊖	Television Outlet	⊖	
⊖	Eyeball Light	⊖	Telephone Outlet	⊖	
⊖	Wall Washer Light (Recessed)	⊖	Medicine Cabinet	⊖	
⊖	Recessed Light	⊖	Frost Proof Hose Bib	⊖	
⊖	2 ⁰ Fluorescent Light	⊖	Recessed Waterproof Light	⊖	
⊖	4 ⁰ Fluorescent Light	⊖	Dedicated Circuit Outlet	⊖	
⊖	Exterior Flood Lights	⊖	Steel Angle (Lintel)	⊖	
⊖	Wall Mounted Incandescent	⊖	Structural Post	⊖	
⊖	Pull Switch Light	⊖	Smoke/Carbon Monoxide Detector	⊖	
⊖		⊖	Fan/Light	⊖	

List of Abbreviations

ADJ.	Adjustable	MC	Medicine Cabinet
A.S.F.	Above Subfloor	MFC.	Manufacturing Overall
BF	Bifold	O.A.	On Center
BM	Beam	O.C.	Optional
B.O.J.	Bottom of Joist	PART.	Plywood
B.W.L.	Braced Wall Line	P.T.	Pressure Treated
CLG	Ceiling	R/A	Return Air
CMU	Concrete Masonry Unit	R.C.	Rough Cut
C.O.	Cased Opening	REF	Refrigerator
COL.	Column	R/O	Range Oven
CONC.	Concrete	SF	Square Foot
CONT.	Continuous	SHWR	Showers
CS	Casement	SIM	Similar
CVAC	Central Vacuum	S.L.	Sliding Door/Window
DBL	Double	STD.	Standard
DES.	Design	STL.	Steel
DH	Double Hung	S&P	Shelf & Pole
DTL	Detail	S.V.B.	Solid Valley Blocking
DW	Dishwasher	T&G	Tongue & Groove
FD	Floor Drain/French Door	T.B.D.	To Be Determined
F.P.	Fireplace	T.O.S.	Top of Slab
FTG.	Footing	T.O.W.	Top of Wall
GF	Ground Fault Circuit Interrupter	TR	Trim
GPDW	Gypsum Drywall	TYP.	Typical
HD.HGHT	Window Head Height	V.I.F.	Verify In Field
HDR	Header	WD	'ood
HFL	Heat/Fan/Light	W/O	Wall Over
HWH	Hot Water Heater	W.W.M.	Welded Wire Mesh
INSUL.	Insulation		
L.I.F.	Locate In Field		
L.T.	Laundry Tub		

Area Calculations

Area Calculations include gross floor area to exterior face of wall for all conditioned spaces and exclude upper levels of multi-story spaces.

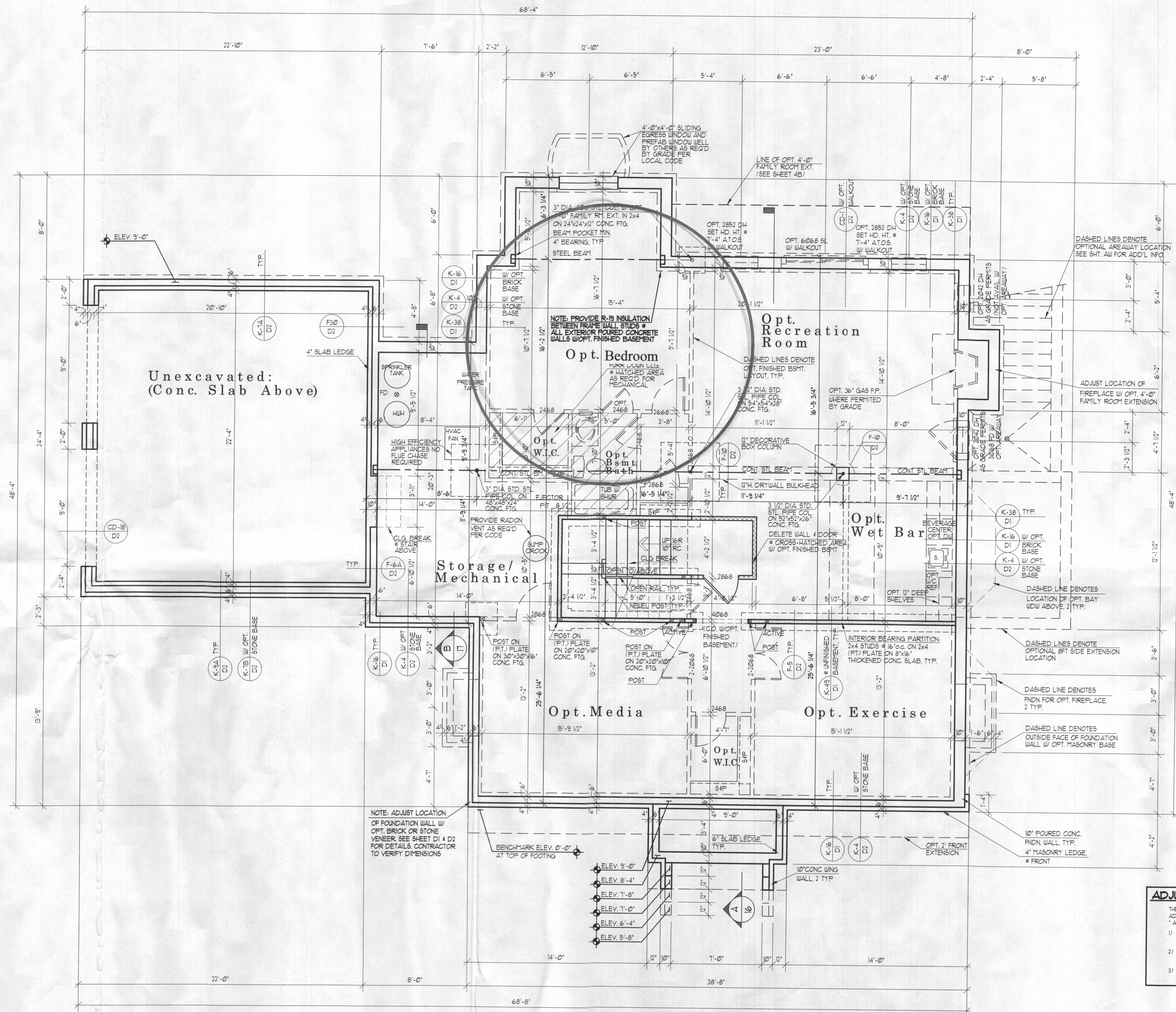
	LOWER	UPPER	BASEMENT
BASE HOUSE	1844 SF	1842 SF	102 SF
OPT. FINISHED BASEMENT			+1525 SF
OPT. 2' FRONT EXTENSION	+76 SF	+76 SF	+77 SF
OPT. 8' SIDE EXTENSION	+97 SF	+97 SF	+104 SF
OPT. 3-CAR SIDELOAD GARAGE	+140 SF		
OPT. HOME OFFICE/INLAW SUITE W/3-CAR SIDELOAD GARAGE		+372 SF	
ALT. ELEV. C	+76 SF	+60 SF	+77 SF
BONUS ROOM OVER GARAGE		+547 SF	
OPT. 8'-0" FAMILY DINING EXTENSION	+77 SF	+77 SF	+77 SF
OPT. 4'-0" FAMILY ROOM EXTENSION	+92 SF	+92 SF	+92 SF
OPT. ATTIC			+697 SF
OPT. BAY WINDOW	+16 SF		

MAX. SQ. FOOTAGE FOR BASE HOUSE W/ ALL AVAILABLE OPTIONS: 7,747 SF

REV. 02/17/12 AS									
REV. 04/12/12 AS									
P.S. 05/09/13 AS									
REV. 02/01/11 J.V.U.C.S									
REV. 03/11/11 J.V.U.C.S									
REV. 06/01/11 D.G.									
REV. 02/10/12 AS									
REV. 02/10/15 JR									
REV. 02/02/12 AS									
REV. 01/15/16 JH									

Project Number: 0706-01

HAWTHOR



ADJUSTABLE STEEL COLUMNS
 THE FOLLOWING ARE APPROVED 11 GAUGE (0.120 IN.) ADJUSTABLE STEEL COLUMNS FOR USE AS SPECIFIED AS ADJ. STL. COL. IN THESE CONSTRUCTION DRAWINGS.
 1) ARCO - 120" ADJUSTABLE COLUMN ICC-ES REPORT: ESR-1452
 2) AKRON - FIXED 4 ADJUSTABLE COLUMNS ICC-ES REPORT: ESR-1161
 3) MARSHALL - EXTEND-O-COLUMN ATI-ES CODE COMPLIANCE REPORT: CORR-0145

FOUNDATION/BASEMENT PLAN
W/ELEVATION "A"

UNLESS OTHERWISE NOTED ALL INTERIOR PARTITIONS TO BE 3/2"
 UNLESS OTHERWISE NOTED WINDOW HEAD HEIGHT TO BE 8'-8" A.T.O.S.

1/4" = 1'-0"

Date	REV. 01/07/12 JG	REV. 02/15/15 JR
AC. 11/05/07 EEB	REV. 01/09/12 JG	REV. 01/15/16 AM
AC. 11/07/10 JT	REV. 02/11/12 JG	
AC. 11/01/10 JT	REV. 04/15/12 JG	
PA. 12/15/10 JG	PA. 05/09/13 JG	
CA. 01/28/11 MUCS	PA. 06/19/13 JG	
REV. 01/29/11 MUCS	REV. 12/13/13 JB	
REV. 06/10/11 DG	REV. 10/29/14 JR	

Project Number: **0706-02**

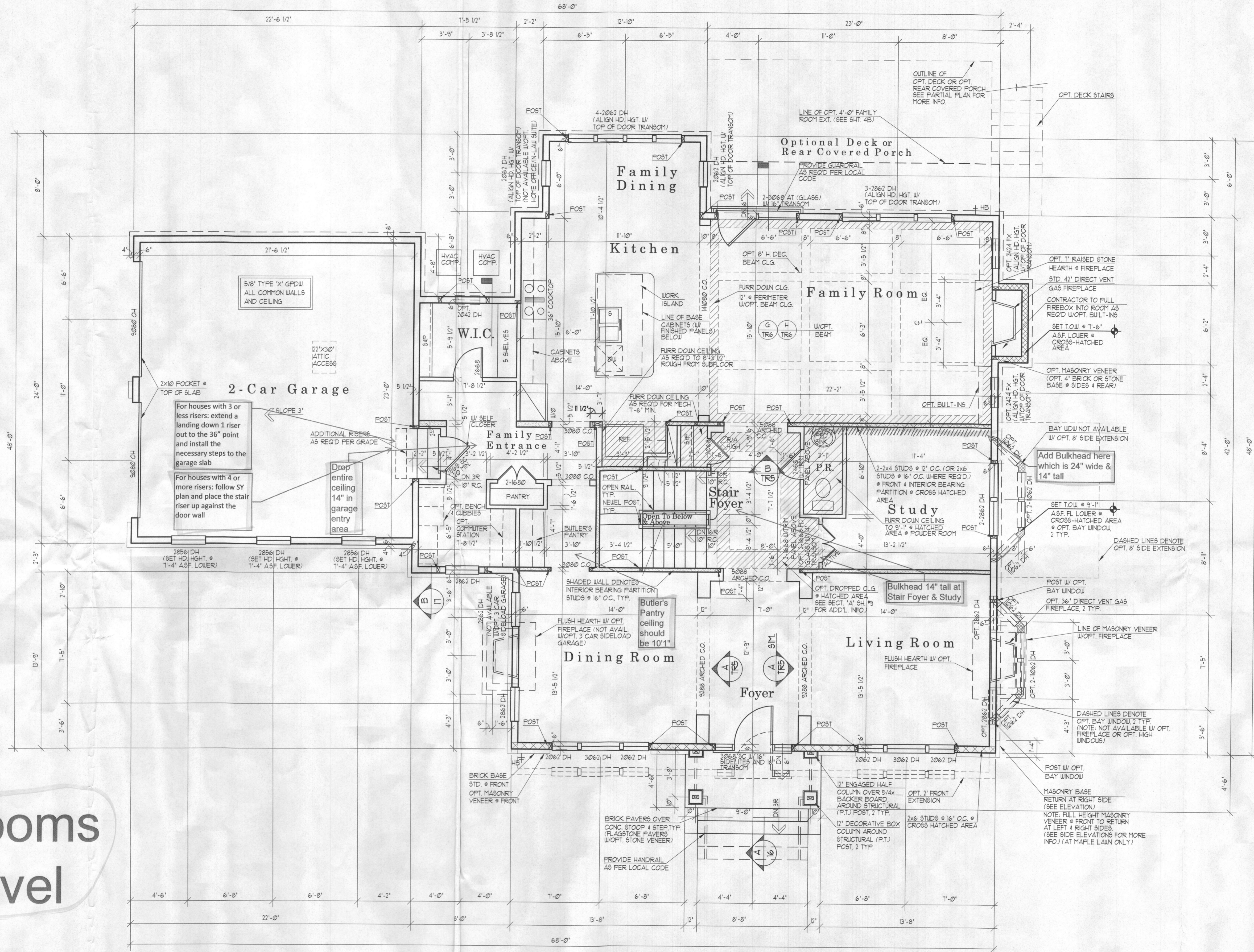
HAWTHORNE
MITCHELL BEST HOMES

Architect

SUTTON YANTIS ASSOCIATES
ARCHITECTS
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 Vienna, VA 22182 Fax: 703.847.6171
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Sheet Number **2**

No bedrooms on this level



LOWER FLOOR PLAN

W/ELEVATION "A"

UNLESS OTHERWISE NOTED ALL INTERIOR PARTITIONS TO BE 3/2"
UNLESS OTHERWISE NOTED WINDOW HEAD HEIGHT TO BE 8'-0" ASF.
UNLESS OTHERWISE NOTED PROVIDE 2-2x6 POSTS BETWEEN ALL MULTIPLE WINDOWS.

1/4" = 1'-0"

Date	REV.	BY	CHK.
AC. 10/15/07	01	BT	EB
AC. 11/01/07	02	BT	EB
AC. 12/01/07	03	BT	EB
AC. 01/01/08	04	BT	EB
AC. 02/01/08	05	BT	EB
AC. 03/01/08	06	BT	EB
AC. 04/01/08	07	BT	EB
AC. 05/01/08	08	BT	EB
AC. 06/01/08	09	BT	EB
AC. 07/01/08	10	BT	EB
AC. 08/01/08	11	BT	EB
AC. 09/01/08	12	BT	EB
AC. 10/01/08	13	BT	EB
AC. 11/01/08	14	BT	EB
AC. 12/01/08	15	BT	EB
AC. 01/01/09	16	BT	EB
AC. 02/01/09	17	BT	EB
AC. 03/01/09	18	BT	EB
AC. 04/01/09	19	BT	EB
AC. 05/01/09	20	BT	EB
AC. 06/01/09	21	BT	EB
AC. 07/01/09	22	BT	EB
AC. 08/01/09	23	BT	EB
AC. 09/01/09	24	BT	EB
AC. 10/01/09	25	BT	EB
AC. 11/01/09	26	BT	EB
AC. 12/01/09	27	BT	EB
AC. 01/01/10	28	BT	EB
AC. 02/01/10	29	BT	EB
AC. 03/01/10	30	BT	EB
AC. 04/01/10	31	BT	EB
AC. 05/01/10	32	BT	EB
AC. 06/01/10	33	BT	EB
AC. 07/01/10	34	BT	EB
AC. 08/01/10	35	BT	EB
AC. 09/01/10	36	BT	EB
AC. 10/01/10	37	BT	EB
AC. 11/01/10	38	BT	EB
AC. 12/01/10	39	BT	EB
AC. 01/01/11	40	BT	EB
AC. 02/01/11	41	BT	EB
AC. 03/01/11	42	BT	EB
AC. 04/01/11	43	BT	EB
AC. 05/01/11	44	BT	EB
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AC. 07/01/11	46	BT	EB
AC. 08/01/11	47	BT	EB
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AC. 05/01/12	56	BT	EB
AC. 06/01/12	57	BT	EB
AC. 07/01/12	58	BT	EB
AC. 08/01/12	59	BT	EB
AC. 09/01/12	60	BT	EB
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AC. 11/01/12	62	BT	EB
AC. 12/01/12	63	BT	EB
AC. 01/01/13	64	BT	EB
AC. 02/01/13	65	BT	EB
AC. 03/01/13	66	BT	EB
AC. 04/01/13	67	BT	EB
AC. 05/01/13	68	BT	EB
AC. 06/01/13	69	BT	EB
AC. 07/01/13	70	BT	EB
AC. 08/01/13	71	BT	EB
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AC. 11/01/13	74	BT	EB
AC. 12/01/13	75	BT	EB
AC. 01/01/14	76	BT	EB
AC. 02/01/14	77	BT	EB
AC. 03/01/14	78	BT	EB
AC. 04/01/14	79	BT	EB
AC. 05/01/14	80	BT	EB
AC. 06/01/14	81	BT	EB
AC. 07/01/14	82	BT	EB
AC. 08/01/14	83	BT	EB
AC. 09/01/14	84	BT	EB
AC. 10/01/14	85	BT	EB
AC. 11/01/14	86	BT	EB
AC. 12/01/14	87	BT	EB
AC. 01/01/15	88	BT	EB
AC. 02/01/15	89	BT	EB
AC. 03/01/15	90	BT	EB
AC. 04/01/15	91	BT	EB
AC. 05/01/15	92	BT	EB
AC. 06/01/15	93	BT	EB
AC. 07/01/15	94	BT	EB
AC. 08/01/15	95	BT	EB
AC. 09/01/15	96	BT	EB
AC. 10/01/15	97	BT	EB
AC. 11/01/15	98	BT	EB
AC. 12/01/15	99	BT	EB
AC. 01/01/16	100	BT	EB

Project Number: 0106-03

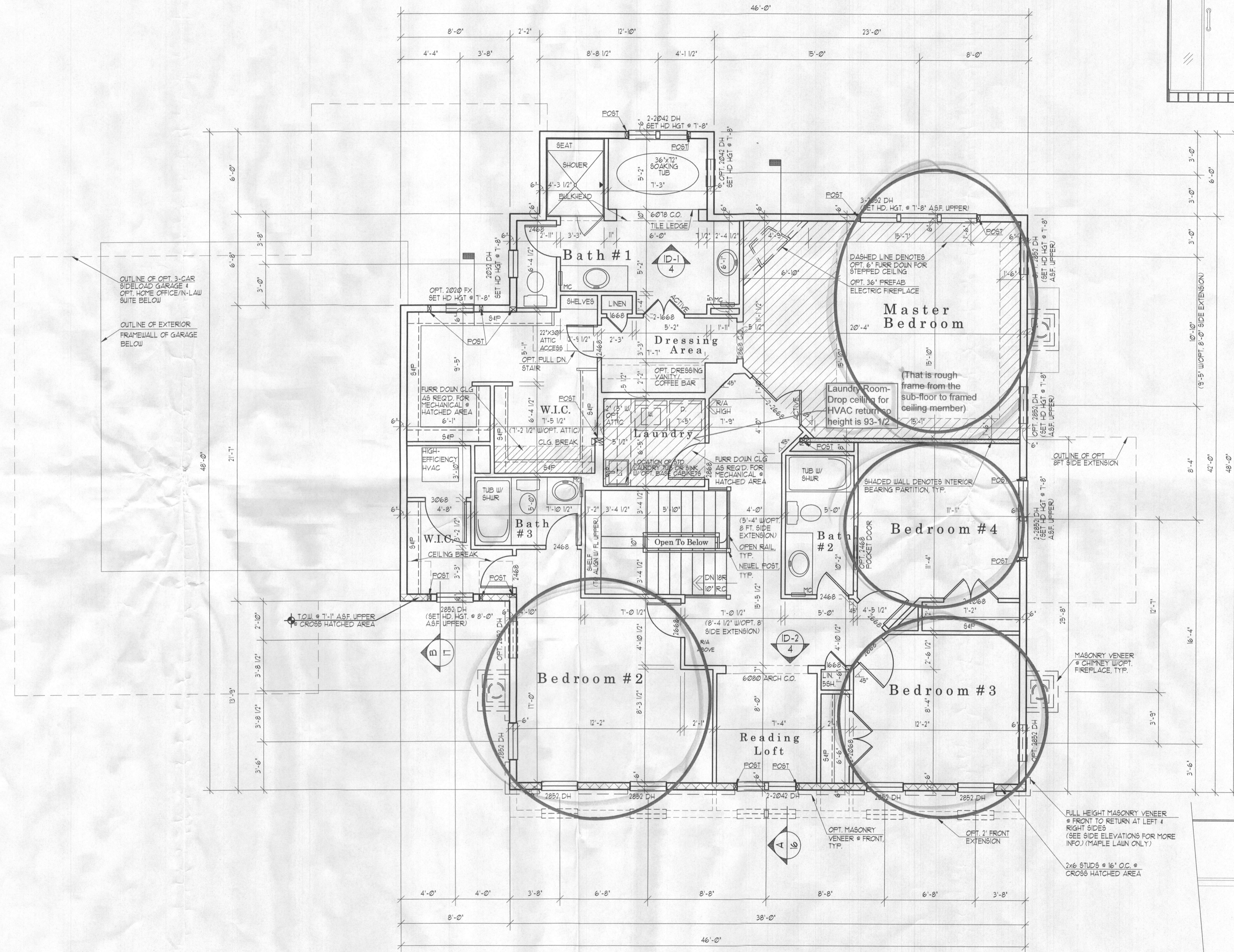
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UPPER FLOOR PLAN

W/ELEVATION "A"

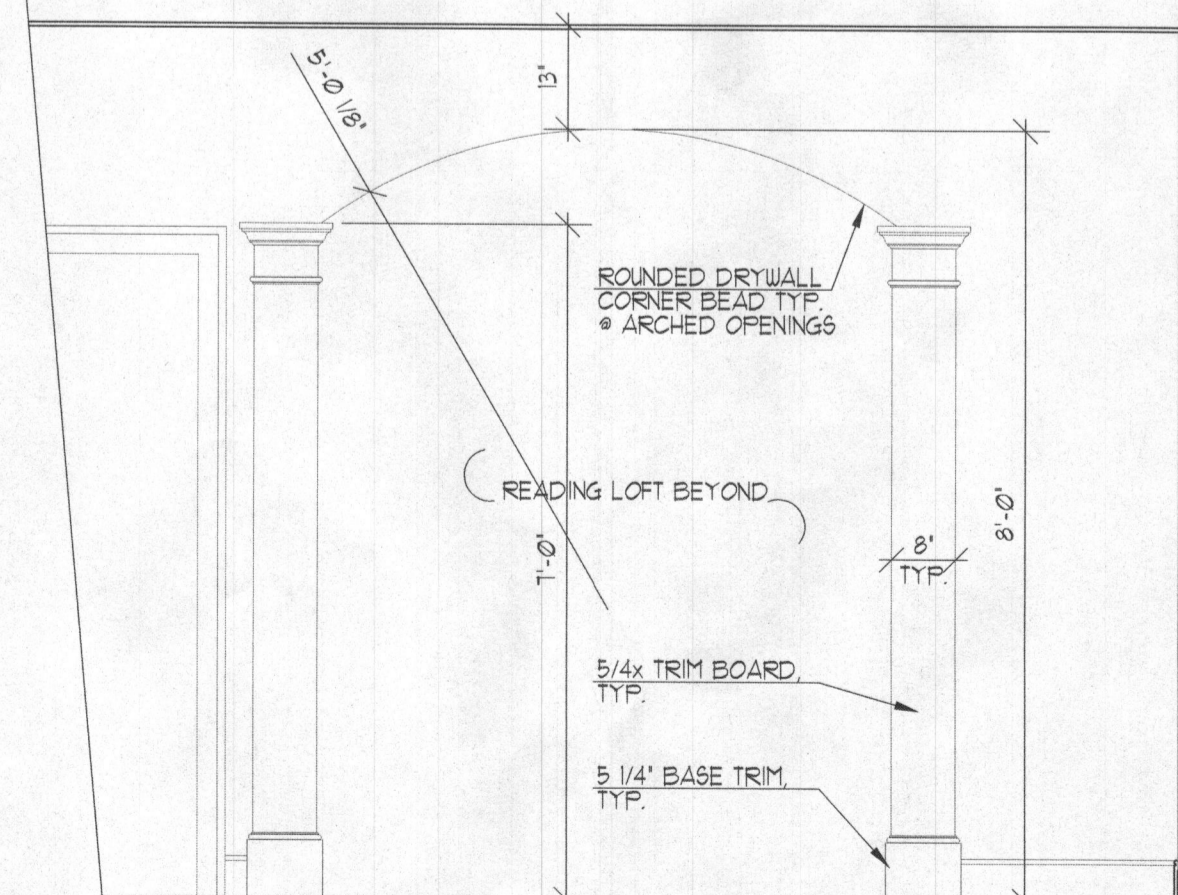
1/4" = 1'-0"

UNLESS OTHERWISE NOTED ALL INTERIOR PARTITIONS TO BE 3/2"
UNLESS OTHERWISE NOTED WINDOW HEAD HEIGHT TO BE 1'-0" A.S.F.
UNLESS OTHERWISE NOTED PROVIDE 1-1/2" POSTS BETWEEN ALL MULTIPLE WINDOWS.



ID-1 Interior Elevation
Master Bath

1/2" = 1'-0"



ID-2 Interior Elevation
Reading Loft Cased Opening

1/2" = 1'-0"

Date	REV.	BY	DATE
AC. 10/15/07	BEB		
AC. 11/07/07	MT		
AC. 12/01/07	MT		
P.S. 12/13/07	MT		
C.S. 01/31/08	MUCB		
REV. 02/05/08	J.M.CS		
REV. 06/10/08	DG		
REV. 07/02/08	JG		
REV. 07/10/08	JG		
REV. 08/13/08	JG		
REV. 08/19/08	JG		
REV. 10/05/08	JR		
REV. 02/19/09	JR		

Project Number: 0706-04

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Sheet Number

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