

# ALLIGOOD ARCHITECTURE

March 1, 2016

Zoning Board  
Village of Hastings-on-Hudson  
Hastings-on-Hudson, NY 10706

Re: 30 Floral Drive  
Hastings-on-Hudson, NY 10706  
Sheet 4.40 Block 34 Lot 4  
Zoning Variance Application

Dear Board Members:

With regard to the proposed addition at 30 Floral Drive, the following zoning variances are requested:

1. Rear yard. Increasing the degree of non-conformity. The existing house extends 7" into the required 30'-0" rear yard setback, including a stone garage that provides the structural support for the rear of the house. This proposal is for reconstructing the rear wall of the house at the first floor in the existing location to increase the bearing capacity and improve thermal performance. The plan for the second floor is to rebuild the wall in its current location, but also to extend it to the full length of the ground floor wall and increase its height by approximately 3'-3 1/4".
2. Front porch. Encroachment into front yard setback. This proposal requests a variance for the front yard setback for a covered front porch. The encroachment will be 3'-2 1/2" into the setback requirement, reducing the front yard to 26'-9 1/2" instead of 30'-0". This encroachment is perhaps mitigated to a certain extent by the additional 15'-1" of existing yard and greenspace that lies between the front property line and Floral Drive (see drawing number Z-104). The proposed front porch will extend 48'-7 3/4" across the full frontage of the house and will provide a useable and gracious porch.

Sincerely,

ALLIGOOD ARCHITECTURE

Douglass Lacy Alligood Jr., AIA



ALLIGOOD ARCHITECTURE

157 Rosedale Avenue • Hastings-on-Hudson, N.Y. 10706 • t: 914.591.2578 • f: 914.591.2578 • e: allibad@optonline.net

VILLAGE OF HASTINGS-ON-HUDSON  
 Zoning Board of Appeals  
 Application and Procedure for Application for  
 Variance/Interpretation/View Preservation



Case number: ..... Date of application: .....

Property owner: **MARC LEAF & DEBRA OAKS**  
 Property address: **30 FLORAL DRIVE, HASTINGS-ON-HUDSON, NY 10706**  
 Name all streets on which the property is located: **FLORAL DRIVE**  
 Sheet: **4.40** ..... Block: **34** ..... Lot/Parcel: **4** ..... Zoning District: **R-10**

Applicant: **DOUGLASS ALLIGOOD**  
 Standing of applicant if not owner: **ARCHITECT**  
 Address: **157 ROSEDALE AVENUE, HASTINGS-ON-HUDSON, NY 10706**  
 Daytime phone number: **646.344.2490** ..... Fax number: **914.591.2578**  
 E-mail address: **ALLIBADEOPTONLINE.NET**

ZBA action requested for (See §295-146B & C :  Use Variance/s;  Area Variance/s;  
 Interpretation;  View Preservation (See §295-82)

List code sections & provisions from which the variance or interpretation is requested:

Section*	Code Provision*	Existing Condition*	Proposed Condition*
<b>295-68.F</b>	<b>30' FRONT YARD</b>	<b>34.3'</b>	<b>26'-9 1/2"</b>
<b>295-68.F</b>	<b>30' REAR YARD</b>	<b>29.4'</b>	<b>29.4'</b>
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

\*See example below:

.....295-68F.1a...	.....Front Yard Min. 30 ft. deep.....	.....26.5 ft.....	.....19.5 ft.....
.....295-68A.....	.....Permitted Principal Use.....	.....Single Family Home.....	.....Conversion to Dental Office.....

VILLAGE OF HASTINGS-ON-HUDSON  
 Zoning Board of Appeals  
 Zoning Analysis



ZONING REQUIREMENTS:

YARD SETBACKS  
 (Principal Structure)

	REQUIRED	EXISTING	PROPOSED
FRONT	30'-0"	34.3'	<del>26'-9 1/2"</del> 26'-9 1/2"
REAR	30'-0"	29.4'	29.4'
SIDE ONE	12'-0"	<del>83.5'</del> 83.5'	<del>83.5'</del> 83.5'
SIDE TWO		<del>53'-6"</del> 53'-6"	<del>42'-6"</del> 42'-6"
TOTAL OF TWO SIDES		137'-0"	126'-0"

YARD SETBACKS  
 (Accessory Structure)

	REQUIRED	EXISTING	PROPOSED
TO PRINCIPAL BLDG.	-	-	-
REAR	-	-	-
SIDE	-	-	-

BUILDING HEIGHT

	PERMITTED	EXISTING	PROPOSED
STORIES	2 1/2	2 1/2	2 1/2
FEET	35'	31'-6" e sw	33'-8" e sw

LOT COVERAGE

	PERMITTED	EXISTING	PROPOSED
LOT AREA	10,000 sq	18,414 sq	18,414 sq
BLDG. COVERAGE / % OF LOT AREA	25%	92 BLDG	14%
DEVELOPMENT COVERAGE / % OF LOT AREA	35%	22%	27%

\*See Definitions of Building and Development Coverage in Section 295-5 of the Village code.

OCCUPANCY AND USE

	PERMITTED	EXISTING	PROPOSED
CURRENT USE**	SINGLE FAMILY	SINGLE FAMILY	SINGLE FAMILY

\*\* Single Family, Two Family, Commercial, Mixed Use etc.

**VILLAGE OF HASTINGS-ON-HUDSON**  
 Zoning Board of Appeals  
 Application and Procedure for Application for  
Variance/Interpretation/View Preservation



- List any previous application or appeal filed with The Zoning Board of Appeals for this premises:

Date of Appeal	Purpose of the Appeal	Resolution if any	Date of Action
.....	.....	.....	.....
.....	.....	.....	.....

- List pending violations on this property if any:

.....  
 .....

- Is there an approved site plan for this property?: .....  (Yes) .....  (No)
- Is there an Accessory Apartment at this property?: .....  (Yes) .....  (No)
- Does this property have Boarder's Permit?: .....  (Yes) .....  (No)

- On a separate typewritten sheet of paper, state the principal points on which you are making this application. Describe the construction, addition or alteration that requires the variance. Explain why a variance is necessary and demonstrate how the variance satisfies the criteria for the type of variance (use or area) sought. The criteria for the two types of variances are attached. (If an interpretation is sought, explain the issue. If you wish you may also state your argument for how the issue should be resolved.)

Submit nine (9) copies of the application along with the required fee, 8 copies of property survey showing the existing and proposed construction and 8 copies of all other supporting documents (plans, drawings, site maps, photographs, etc. as necessary to describe and support your application) to the Office of the Building Inspector, no less than six (6) weeks prior to the date of scheduled meeting of the Zoning Board of Appeals.

STATE OF NEW YORK  
 COUNTY OF WESTCHESTER ss.:

I hereby depose and say that all of the above statements and statements contained in all papers I have submitted in connection with this application are true:

Sworn to before me this 24<sup>th</sup> day  
 of Feb., 20016



Applicant

*Mary Ellen Ballantine*  
 Notary Public

VILLAGE OF HASTINGS-ON-HUDSON  
Zoning Board of Appeals  
Application and Procedure for Application for  
Variance/Interpretation/View Preservation



STATE OF NEW YORK  
COUNTY OF WESTCHESTER  
VILLAGE OF HASTINGS ON HUDSON

Name : DEBRA D. OAKS, being duly sworn, deposes and says that  
he/she resides at 31 FLORAL DR in the Village of Hastings-on-  
Hudson in the County of Westchester, in the State of New York, that he/she is the owner of all that certain lot,  
parcel of land, in fee, lying and being in the Village of Hastings-on-Hudson aforesaid and known and  
designated as Sheet 4.40 Block 34 and Lot 4 of the tax map, and that  
he/she hereby authorized Douglas Alligood to make the annexed  
application in his/her behalf and that the statement of fact contained in said application are true.

Debra Oaks

Owner

SWORN TO BEFORE ME THIS 24<sup>th</sup> DAY  
OF Feb. 2016



Mary Ellen Ballantine  
Notary Public

NOTICE

This application will not be accepted for filing unless accompanied by all necessary papers, plans and data, in accordance with the foregoing and as required by law.



OAKS-LEAF  
Residence  
30 Floral Drive  
Hastings-on-Hudson, NY

ALLIGOOD  
157 Boardwalk Avenue  
Hastings-on-Hudson, NY 10706  
(914) 391-2278

Sheet No. Z-100  
DATE: 01.16.12  
SCALE: 1" = 10'-0"  
PROJECT: #1001

EXISTING SITE PLAN

DATE	01.16.12
SCALE	1" = 10'-0"
PROJECT	#1001
DATE	02.21.12
SCALE	AS SHOWN FOR REVIEW
PROJECT	1001
DATE	
SCALE	
PROJECT	
DATE	
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PROJECT	
DATE	
SCALE	
PROJECT	
DATE	
SCALE	
PROJECT	

Sheet Title

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L K J I H G F E D C B A



1 EXISTING SITE PLAN  
SCALE: 1/16"=1'-0"









**OAKS-LEAF  
Residence**  
30 Floral Drive  
Hastings-on-Hudson, NY

**ALLIGOOD**  
157 Boulevard Avenue  
Hastings-on-Hudson, NY 10706  
(914) 391-2278

**PROPOSED  
SITE PLAN**

Sheet No. **Z-104**

DATE: 01.16.12  
SCALE: 1" = 10'-0"  
PROJECT: PROJ # 11001

**DETAILED SPEC**

- ADDRESS: 30 FLORAL DRIVE
- SHEET: 4/0
- BLOCK: 34
- LOTS: A
- ZONE: R-10
- USE: ONE FAMILY DETACHED DWELLING
- MINIMUM LOT AREA: 10,000 SF
- ACTUAL LOT AREA: 10,141 SF
- MAXIMUM BUILDING COVERAGE (B/C): 40.0%
- EXISTING BUILDING COVERAGE: 0.0%
- PROPOSED BUILDING COVERAGE: 21.84%
- PROPOSED ADDITIONAL BUILDING COVERAGE: 23.2%
- REAR YARD SETBACK: 4'-0"
- FRONT YARD SETBACK: 8'-0"
- EXISTING FOOTPRINT AREA: 1,133 SF
- PROPOSED FOOTPRINT AREA: 1,133 SF
- PROPOSED LOT AREA: 10,141 SF
- MINIMUM LOT WIDTH: 100'-0"
- ACTUAL LOT WIDTH: 203'-6"
- (SEE LAYOUT)
- REQUIRED REAR YARD: 30'-0"
- PROPOSED REAR YARD: 34'-4"
- ADDITION: 4'-4"
- REAR SETBACK WITH A SIDE YARD DECKS 30 FEET IN LENGTH TO THE CENTER LINE OF WHICH IN CASES OF 90 FEET. (SEE SPEC PAGE 1)
- MINIMUM REAR YARD: 46'-0" [ 37'-0" ] 37'-0" [ 35'-0" ]
- PROPOSED REAR YARD: 48'-0"
- MINIMUM AGGREGATE TWO SIDE YARD: 136'-0" [ MINIMUM ]
- PROPOSED SIDE YARD: 30'-0"
- EXISTING SIDE YARD: 30'-0"
- EXISTING REAR YARD: 23'-0" (NO CHANGE)
- REAR YARD OF PROPOSED ADDITION: 30'-0"
- MAXIMUM HEIGHT (FOOTED): 4'
- MAXIMUM HEIGHT (B/C): 35'-0"
- ADDITIONAL HEIGHT (B/C) FROM EXISTING FOOTPRINT: 27'-0"
- NORTHWEST CORNER: 27'-0"
- SOUTHWEST CORNER: 30'-0"

PROPOSED ADDITION



**1 SITE PLAN**  
SCALE: 1" = 10'-0"



















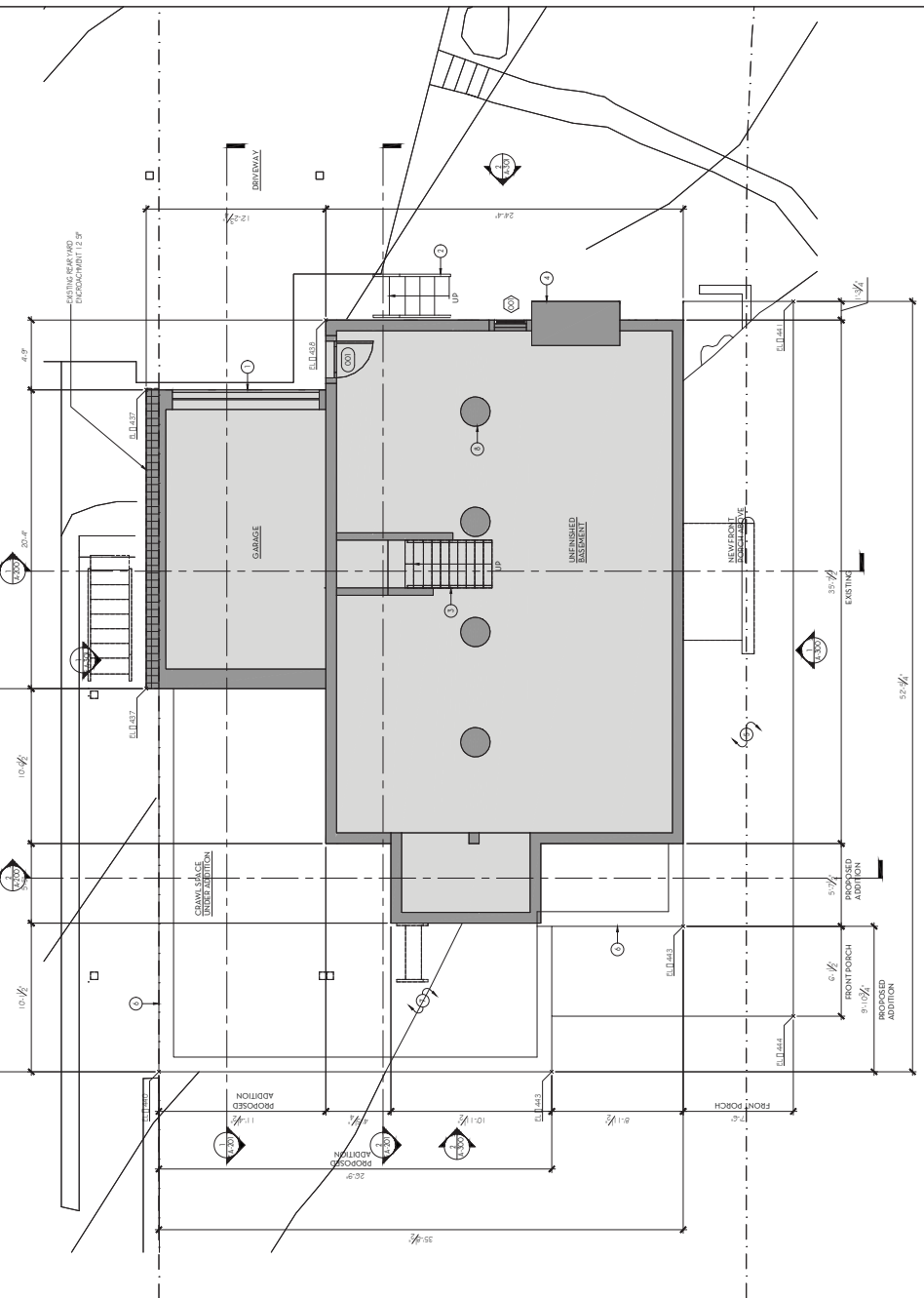


**CONSTRUCTION PLAN LEGEND**

- EXISTING OR STRUCTURE TO REMAIN
- EXISTING WALL TO REMAIN
- REFERENCE TO NOTES
- PARTITION TYPE
- NEW FULL LIGHT PARTITION
- NEW 1/2 BRICK WALL
- NEW CONCRETE BLOCK WALL
- EXISTING DOOR TO REMAIN
- DOOR NUMBER
- NEW DOOR
- FLOORING FINISH/INDICATION - SEE SPECS
- WINDOW NUMBER
- NEW WINDOW
- DETAIL NUMBER
- SHEET NUMBER
- DETAIL REFERENCE TABLE
- SECTION NUMBER
- ELEVATION NUMBER
- ELEVATION REFERENCES
- SHEET NUMBER
- ALIGN
- ALIGN FINISH LINES
- NEW DOOR - FLOOR ELEVATION SYMBOL
- FLOOR ELEVATION CHANGE
- BARREL RECEPTACLE WALL MOUNTED FLUSH VERTICAL 1" @ 16" O.C.
- DUPLEX GROUND FAULT INTERRUPTER RECEPTACLE
- DEDICATED DUPLEX RECEPTACLE
- WALL MOUNTED DUPLEX RECEPTACLE
- QUAD RECEPTACLE WALL MOUNTED DASH
- PHONE AND WALL MOUNTED FLUSH @ 8" FROM DOOR BELL MOUNTED @ 48" CONTACT NEW DOOR TO EXISTING TIME
- PUSH LOCK OUTLET
- CEILING HOOK OUTLET
- WALL MOUNTED SINGLE POLE SWITCH
- WALL MOUNTED DIMMER SWITCH
- WALL MOUNTED 3-WAY SWITCH
- WALL MOUNTED DIMMER/FASE SWITCH
- WALL MOUNTED THERMOSTAT
- ELECTRIC POWERED SMOKE DETECTOR
- EXISTING LIGHT FIXTURE TO BE REMOVED - REMOVE ASSOCIATED WIRING/CONDUIT BACK TO SOURCE
- CEILING MOUNTED SPEAKER WIRE TO CENTRAL SPEAKER SYSTEM - REMOVE WIRING/CONDUIT BACK TO SOURCE
- REFER TO NEW CONSTRUCTION

**CONSTRUCTION KEY NOTES**

1. NEW GARAGE DOOR
2. NEW WOOD STEPS TO NEW DECK
3. NEW WOOD STAIR TO 1ST FLOOR
4. REPLACE EXISTING STUCCO ON CHIMNEY, REPLACE WITH NEW STUCCO, REPAIR TO MATCH EXISTING FOUNDATION
5. REPAIR EXISTING FRONT PORCH
6. REPAIR EXISTING SIDEWALK WITH 1" @ 2" W/CONTINUOUS CONCRETE
7. AREA MARK REDUCE FIBER OR SUBSEQUENCE DUE TO LARGE ROCK CUT EXPOSURE
8. DETERMINE STRUCTURAL REMAINING IN THIS AREA TO BE REPAIRED
9. NEW 1/2 BRICK SINK
10. NEW DISHWASHER
11. NEW GAS COOKTOP
12. NEW WALL OVERS/BUILT UNDERDRINK
13. NEW REFRIGERATOR WITH COOLWAVE SUPPLY
14. NEW WETTED COUNTERTOP/CABINETS AND OVERSINK
15. NEW SINK COUNTERTOP AND WARE CABINETS
16. NEW WOOD STAIR BETWEEN 1ST & 2ND FLOORING
17. NEW STONE FIBERGLASS SINK
18. NEW STONE FIBERGLASS SINK
19. REPAIR EXISTING FINISH FLOORING ON 1ST FLOOR
20. NEW WOOD PAINTING AT SINK OPENING
21. BULLHORN PAINTED WOOD PANELS IN HALLWAY CLOSET
22. NEW WOOD WITH SINKS REPAIRING EXISTING DOOR OPENING
23. NEW WETTED SINK
24. NEW FLOOR FINISHING: 2x8 W/ @ 16" O.C.
25. NEW FLOOR FINISHING: 2x10 W/ @ 16" O.C.
26. NEW FLOOR FINISHING: 2x12 W/ @ 16" O.C.
27. NEW WOOD STAIR FINISHING ON 1ST FLOOR UNDERSTAIR
28. NEW STONE TILE FINISHING FLOORING ON 1ST FLOOR UNDERSTAIR
29. NEW WOOD FINISHING FLOORING ON 1ST FLOOR UNDERSTAIR
30. NEW 1/2 BRICK FINISHING FLOORING
31. AIR HANDLERS FOR KEY GENERAL AC SYSTEM TO BE LOCATED IN THE NEW FINISH FLOORING AREA. WATER HEATER TO BE LOCATED IN THE ATTIC TO PRODUCE IMPROVED WATER PRESSURE TO THE 2ND FLOOR
32. NEW WOODWORK FINISHING



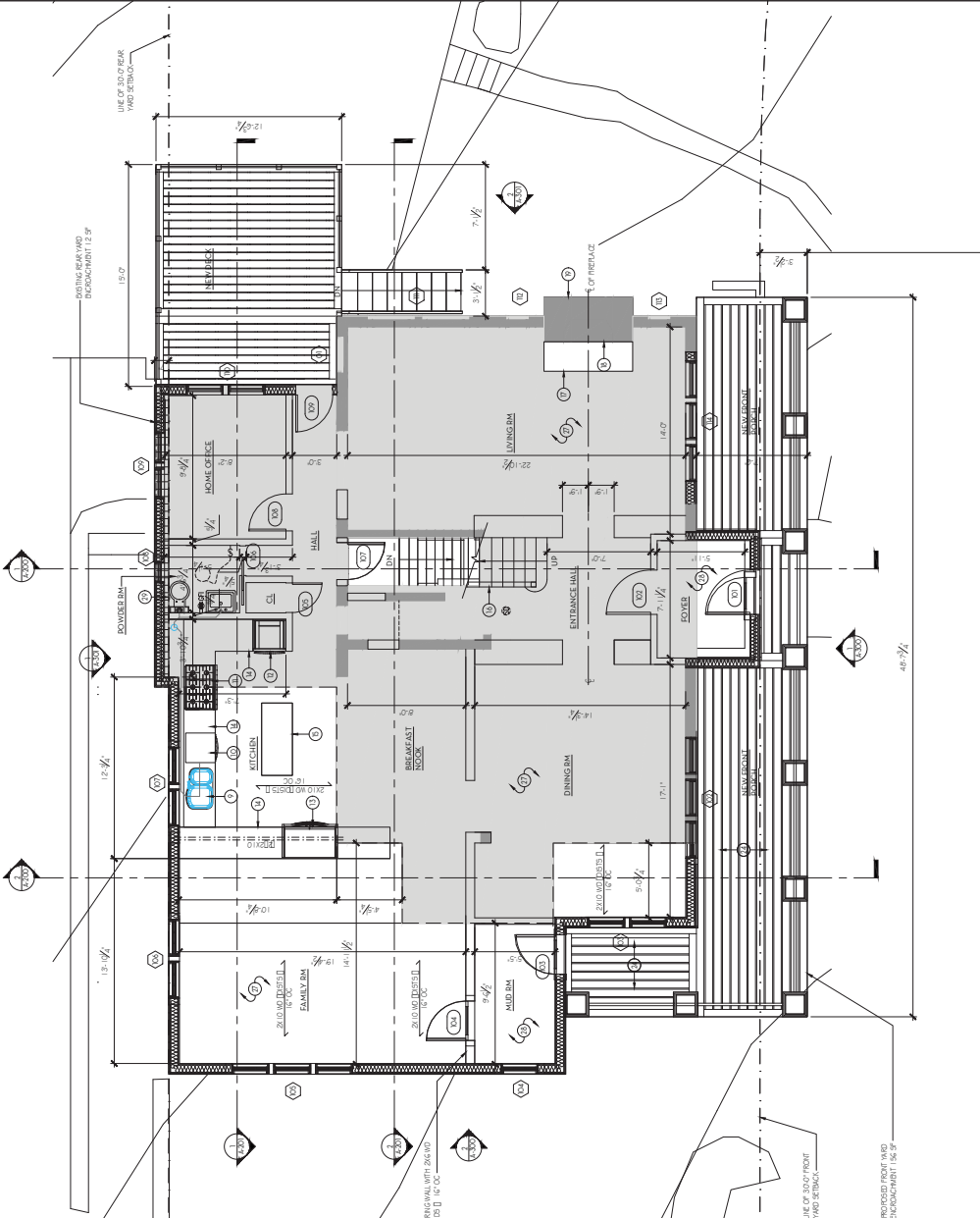
**1 BASEMENT PLAN**  
SCALE 1/4" = 1'-0"

**CONSTRUCTION PLAN LEGEND**

- EXISTING OR STRUCTURE TO REMAIN
- EXISTING WALL TO REMAIN
- REFERENCE TO NOTES
- PARTITION TYPE
- NEW FULL HEIGHT PARTITION
- NEW 1/2 HEIGHT WALL
- NEW CONCRETE BLOCK WALL
- EXISTING DOOR TO REMAIN
- LOCK NUMBER
- NEW DOOR
- FLOORING FINISH/INDICATION - SEE SPECS
- WINDOW NUMBER
- NEW WINDOW
- OPTICAL NUMBER
- SHEET NUMBER
- DETAIL REFERENCE SYMBOL
- SECTION NUMBER
- ELEVATION NUMBER
- ELEVATION NUMBER
- SHEET NUMBER
- ALIGN
- NEW FLOOR - FLOOR ELEVATION SYMBOL
- FLOOR ELEVATION CHANGE
- BAULDED RECEPTACLE WALL MOUNTED FLUSH VERTICAL @ 10" AFF (1.0)
- DUPLEX GROUND FAULT INTERRUPTER RECEPTACLE
- DEDICATED DUPLEX RECEPTACLE
- WATERPROOF DUPLEX RECEPTACLE
- QUAD RECEPTACLE WALL MOUNTED FLUSH
- PHONE AND WALL MOUNTED FLUSH @ 8" AFF (ING)
- DOOR BELL MOUNTED 8" AFF CONTACT NEW DOOR BELLS TO EXISTING FRAME
- PUSH LOCK OUTLET
- CEILING MOUNTED OUTLET
- WALL MOUNTED SINGLE POLE SWITCH
- WALL MOUNTED DIMMER SWITCH
- WALL MOUNTED 3-WAY SWITCH
- WALL MOUNTED DIMMABLE SWITCH
- WALL MOUNTED THERMOSTAT
- ELECTRIC POWERED SMOKE DETECTOR
- EXISTING LIGHT FIXTURE TO BE REMOVED - REMOVE ASSOCIATED WIRING/CONDUIT/PIPE TO SOURCE
- CEILING MOUNTED SPEAKER WIRE TO CEILING - SEE REFERENCE IN KEY PLAN
- REFER TO KEY PLAN FOR FINISHES

**CONSTRUCTION KEY NOTES**

1. NEW GARAGE DOOR
2. NEW WOOD STAIRS TO NEW DECK
3. NEW WOOD STAIR TO 1ST FLOOR
4. REPLACE EXISTING STUCCO CLADDING ON CHIMNEY - REPLACE WITH NEW STUCCO - VERIFY TO MATCH EXISTING FOUNDATION
5. FINISH UNDER NEW FRONT PORCH
6. NEW 2" CONCRETE WALL WITH 1" OF 12" X 24" W/CONTINUOUS CONCRETE FOOTING
7. AREA MAY REQUIRE PILING OR SUELOR CHANGE DUE TO GARAGE ROCK CUT EXPOSURE
8. EXISTING STRUCTURAL FINISHES IN THIS AREA TO BE REFINISHED
9. NEW 1/2" THICK SINK
10. NEW DISHWASHER
11. NEW GAS COOKTOP
12. NEW WALL OVERSILL BUILT IN MUDROOM
13. NEW REFRIGERATOR/STOVE/ICE MAKER SUPPLY
14. NEW TUB/TOILET COUNTER/BENCH/CARNEYS AND/OVERHANG
15. NEW BATH COUNTER AND BATH CABINETS
16. NEW WOOD STAIR BETWEEN 1ST & 2ND FLOOR
17. NEW STONE FINISH BASE
18. NEW STONE FINISH SURROUND
19. FINISH BASE FOR NEW STAIRS ON NEW FINISHES - EXISTING BASE - REMOVE AS NECESSARY TO MAINTAIN INTEGRITY OF WATERPROOFING
20. NEW WOOD FINISH AT STAIR OPENING
21. BUILT IN PAINTED WOOD SHALVE IN BATH CLOSET
22. NEW WOOD FINISH SINK RECESS/UNDERSTAIR DOOR OPENING
23. NEW ATTIC W/ROOF
24. NEW FLOOR FINISHING - 2x8 W/ 12" JOIST @ 16" OC
25. NEW FLOOR FINISHING - 2x12 W/ 12" JOIST @ 16" OC
26. NEW OAK STRIP FINISHED FLOORING ON 1/2" WOOD UNDERLAYMENT
27. NEW STONE TILE FINISHED FLOORING ON 1/2" WOOD UNDERLAYMENT
28. NEW STONE TILE FINISHED FLOORING ON 1/2" WOOD UNDERLAYMENT
29. NEW 1/2" FINISHED FLOORING ON 1/2" WOOD UNDERLAYMENT
30. NEW 1/2" FINISHED FLOORING
31. AIR HANDLER FOR NEW CENTRAL AC SYSTEM TO BE LOCATED IN THE ATTIC. THE AIR POINT OF USE AND WATER TO BE LOCATED IN THE ATTIC TO PROTECT IMPROVED WATER PRESSURE TO THE 2ND FLOOR
32. NEW ROOFING SHIELDS



1. 1ST FLOOR PLAN  
SCALE 1/4" = 1'-0"









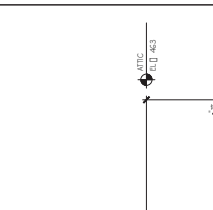


**CONSTRUCTION PLAN LEGEND**

**CONSTRUCTION KEYED NOTES**

- 1 EXISTING DOOR STRUCTURE TO REMAIN
- 2 EXISTING WALL TO REMAIN
- 3 REFERENCE TO NOTES
- 4 PARTITION TYPE
- 5 NEW FULL LIGHT PARTITION
- 6 NEW 6" TYPICAL WALL
- 7 NEW CONCRETE BLOCK WALL
- 8 EXISTING DOOR TO REMAIN
- 9 DOOR NUMBER
- 10 NEW DOOR
- 11 FLOORING TYPE DESIGNATION - SEE SPECS
- 12 WINDOW NUMBER
- 13 NEW WINDOW
- 14 DETAIL NUMBER
- 15 SHEET NUMBER
- 16 DETAIL REFERENCE SYMBOL
- 17 SECTION NUMBER
- 18 ELEVATION NUMBER
- 19 SECTION REFERENCE
- 20 ELEVATION NUMBER
- 21 SHEET NUMBER
- 22 ALIGN
- 23 ALIGN FINISH LINES
- 24 SET FLOOR - FLOOR ELEVATION SYMBOL
- 25 FLOOR ELEVATION CHANGE
- 26 BARBER RECEPTACLE, WALL MOUNTED FLUSH, VERTICAL [ ] 1" FT 11.0
- 27 DUPLEX GROUND FAULT INTERRUPTER RECEPTACLE
- 28 DEDICATED DUPLEX RECEPTACLE
- 29 WALL MOUNTED DUPLEX RECEPTACLE
- 30 QUAD RECEPTACLE, WALL MOUNTED FLUSH
- 31 PHONE AND WALL MOUNTED FLUSH @ 8" FROM DOOR
- 32 DOOR BELL MOUNTED @ 48" CONTACT NEW DOOR TO EXISTING FRAME
- 33 PUSH LOCK OUTLET
- 34 CEILING MOUNTED OUTLET
- 35 WALL MOUNTED SINGLE POLE SWITCH
- 36 WALL MOUNTED DIMMER SWITCH
- 37 WALL MOUNTED 3-WAY SWITCH
- 38 WALL MOUNTED DIMMABLE SWITCH
- 39 WALL MOUNTED THERMOSTAT
- 40 ELECTRIC POWERED SMOKE DETECTOR
- 41 EXISTING LIGHT FIXTURE TO BE REMOVED - REMOVE ASSOCIATED WIRING COUNT BACK TO SOURCE
- 42 CEILING MOUNTED SPEAKER WIRE TO CENTRAL SYSTEM - REMOVE EXISTING WIRING - RE-INSTALL IN NEW CONTROL

- 1 REINFORCE DOOR
- 2 REINWOOD STAIRS TO NEW DECK
- 3 REINWOOD STAIRS TO 1ST FLOOR
- 4 REPLACE EXISTING STUCCO ON CHIMNEY, REPLACE WITH NEW STUCCO, RECESS TO MATCH EXISTING FOUNDATION
- 5 REINWOOD NEW FRONT PORCH
- 6 REINWOOD NEW FRONT PORCH
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- 41 REINWOOD NEW FRONT PORCH
- 42 REINWOOD NEW FRONT PORCH



**2 EAST / WEST SECTION 2**  
SCALE: 1/4" = 1'-0"

**1 EAST / WEST SECTION 1**  
SCALE: 1/4" = 1'-0"

REVISIONS: 01.16.18

DATE: 01.16.18

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

PROJECT: #1603

SHEET NO. A-201

DATE: 01.16.18

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

PROJECT: #1603

SHEET NO. A-201

DATE: 01.16.18

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

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SHEET NO. A-201

DATE: 01.16.18

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

PROJECT: #1603





Sheet Title

Stamp

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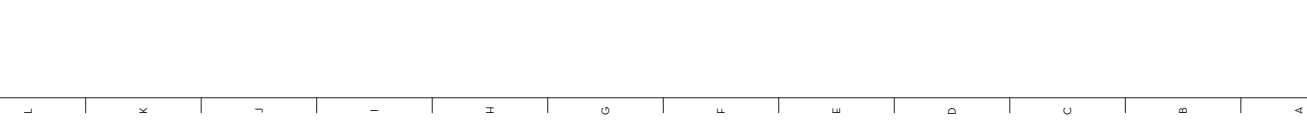
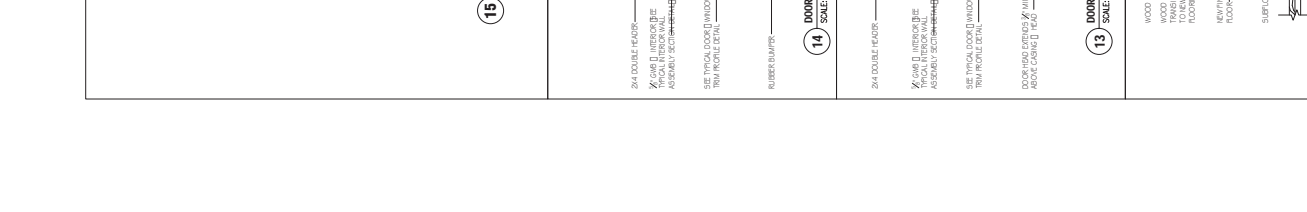
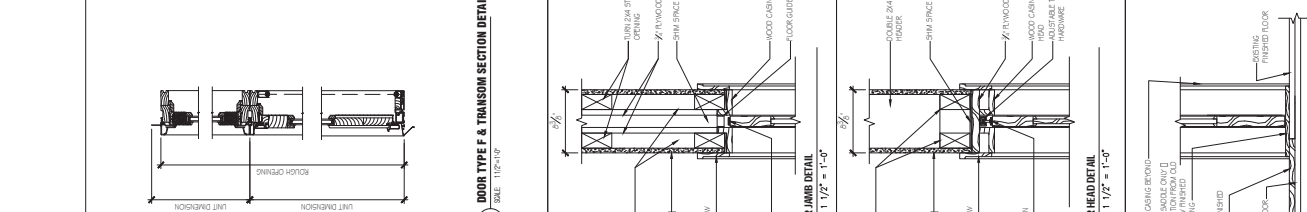
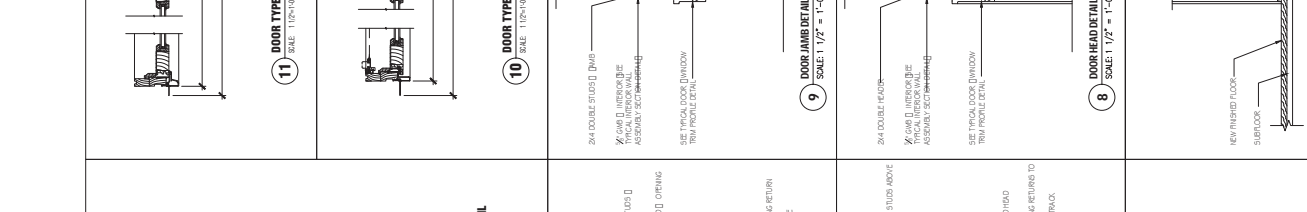
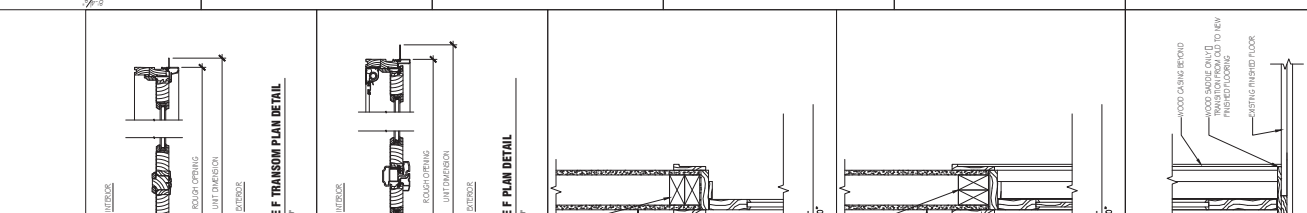
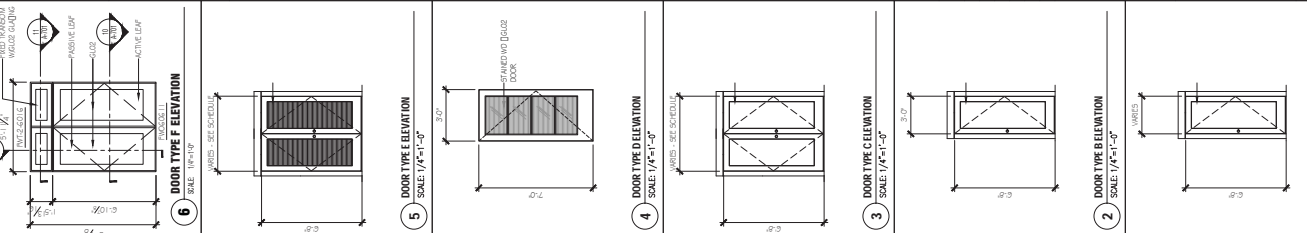
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February 22, 2016

## Oaks-Leaf Drainage Analysis

### 30 Floral Dr. Hastings-on-Hudson, N.Y. 10706

#### Additions to One Family Residence

#### Criteria :

The criteria for this Analysis shall be "Zero Additional" runoff for a storm event occurring once every 100 years for the total site area. For this project we shall compare the (Pre-existing) runoff conditions with the runoff conditions of the completed proposed (Post-Construction) project. Drywells shall be installed to accommodate all additional runoff produced during a 100 year storm event after the new construction.

The Westchester County Manual for Best Management Practices, shall be used with the Rainfall in inches of a 100 year event of 9.0\* inches in a 24 hour period as revised by the State. For Analysis purposes we shall use Table 3-2 for characteristic Cn's. All impervious areas shall have a Cn number of 98. We shall obtain the runoff of individual co-efficients by interpolation.

\* As Revised

#### Runoff Characteristic Cn Values 100 Year Storm ~ 9.0" \*

Buildings	Cn 98 = 8.70	For a 100 Year storm event
Walks, walls & Landings	Cn 98 = 8.70	For a 100 Year storm event
Pavers Drive	Cn 90 = 7.53	For a 100 Year storm event
Open Porch	Cn 98 = 8.70	For a 100 Year storm event
Masonry Patio	Cn 98 = 8.70	For a 100 Year storm event
Wood Deck	Cn 85 = 6.81	For a 100 Year storm event
Gravel Areas	Cn 65 = 4.08	For a 100 Year storm event
Exposed Ledge Rock	Cn 98 = 8.70	For a 100 Year storm event
Lawn/plantings Area	Cn 75 = 5.41	For a 100 Year storm event.

\* NYS Revised Storm Runoff Depth Numbers  
100 Year = 9.0 " in a 24 hour period

**PRE - DEVELOPMENT RUNOFF ANALYSIS**  
**100 Year Storm**

DESCRIPTION	AREA	Cn	Runoff	Runoff Vol.
Oaks~Leaf Residence 30 Floral Drive Hastings-on-Hudson N.Y. 10706	S.F.		In.	Cubic Feet
House/Porch	1,578 s.f.	Cn 98	8.70	1,144.1 c.f.
Shed	15 s.f.	Cn 98	8.70	10.9 c.f.
Wood Decks	389 s.f.	Cn 85	6.81	220.8 c.f.
Masonry steps/walks	436 s.f.	Cn 98	8.70	316.1 c.f.
Paver Drive	2,054 s.f.	Cn 90	7.53	1,288.9 c.f.
Ledge	1,210 s.f.	Cn 98	8.70	877.3 c.f.
Impervious Sub Total	5,682 s.f.			
Lawn Shrub Area	12,732 s.f.	Cn 75	5.41	5,740.0 c.f.
<b>Total Lot Area ..... 18,414 S.F.</b>				
<b>Total Pre-Development Runoff.....</b>				<b>9,598.1 C.F.</b>
<b>100 year storm event</b>				

**POST - DEVELOPMENT RUNOFF ANALYSIS**  
**100 Year Storm**

DESCRIPTION	AREA	Cn	Runoff	Runoff Vol.
Oaks~Leaf Residence 30 Floral Drive Hastings-on-Hudson N.Y. 10706	S.F.		In.	Cubic Feet
House/Porch	2,498 s.f.	Cn 98	8.70	1,811.1 c.f.
Shed under deck	0 s.f.	Cn 98	8.70	0.0 c.f.
Wood Decks	182 s.f.	Cn 85	6.81	132.0 c.f.
Masonry steps/walks	336 s.f.	Cn 98	8.70	218.4 c.f.
Paver Drive	2,054 s.f.	Cn 90	7.53	1,288.9 c.f.
Ledge	1,210 s.f.	Cn 98	8.70	877.3 c.f.
Impervious Sub Total	6,280 s.f.			
Lawn Shrub Area	12,134 s.f.	Cn 75	5.41	5,470.4 c.f.
<b>Total Lot Area ..... 18,414 S.F.</b>				
<b>Total Post-Development Runoff.....</b>				<b>9,798.1 C.F.</b>
<b>100 year storm event</b>				

**POST DEVELOPMENT - PRE-DEVELOPMENT = ADDITIONAL RUNOFF  
RUNOFF RUNOFF**

**9,798.1 C.F. - 9,598.1 C.F. = 200.0 Cubic Feet**

**Reqd. Storage Capacity = 200 C.F. = ZERO ADDITIONAL RUNOFF**

### **STORAGE SOLUTION**

**Retention capacity calculations for each RECHARGER 330  
Length 7.5 feet Width 52 inches Height 30.5 inches  
Chamber Vol. = 46.5 C.F. (Manufacturer's sheet), Perc Test 12 min/in.**

**Vol. of 30" high Band : 30" x 24" x 2[ 7' + 4'] = 110 c.f. of gravel 30" high Voids  
in Gravel = 40 % Void Capacity = 40% x 110 c.f. Void Vol. = 44.0 c.f.**

**Percolation Capacity : Test hole dia 8"; drop 3"; Avg. Depth 7.5";  
Perc. Test 12.0 min/in actual**

**$A_p = \text{Area of Percolation} = A_c [\text{wetted wall}] + A_b [\text{bottom}]$   
 $A_b = n r x r = 3.14 x 4" x 4" = 50.24 \text{ s.i.} / 144 \text{ si.} = .349 \text{ s.f.}$**

**$A_c = n x D x H_{\text{wetted avg}} = 3.14 x 8" x 7.5" / 144 \text{ s.i.} = 1.308 \text{ s.f.}$**

**$A_p = A_c + A_b = .349 \text{ s.f.} + 1.308 \text{ s.f.} = \underline{1.657 \text{ s.f.}}$**

**Volume of Percolation =  $A_b x H_d \text{ drop} = .349 \text{ s.f.} x 1/12 \text{ ft.} = .0291 \text{ c.f.}$**

**Soil Percolation Rate =  $S_r = .0291 \text{ c.f.} / 1.657 \text{ s.f.} / 12 \text{ min} = \underline{.00146 \text{ cf/sf/minute}}$**

**Percolation Capacity in 24 hrs. for "Recharger 330"**

**Percolation Area (Bottom Only) 7.5' x 4.33' = 32.5 s.f.**

#### **PERCOLATION PER 24 HRS.**

**75% x Perc. Rate x Perc. Area x 24 hr. x 60 min.**

**75% x .00146 c.f./s.f./min. x 32.5 s.f. x 60 min x 24 hr. = 51.2 c.f. perc. per 24 hr.**

### **Total Designed Storage Capacity**

**Q Design = Recharger 330 Vol + Gravel Void Vol + Percolation Volume**

**Q Design = 46.5 c.f. (Recharger 180 Vol).+ (Void Vol.)44.0 c.f.+ (Perc. Vol.) 51.2 c.f**

**Q Design = [46.5 + 44.0 + 51.2 ] c.f. / 24 hrs. = 141.7 c.f./24 hr**

Design Solution :    How Many ?     $200\text{c.f.}/141.7 = 1.41 \text{ Units}$     USE 2 Units  
=====

USE (2) RECHARGER 330 WITH 30", HIGH, 24" WIDE RING OF GRAVEL AROUND OUTSIDE OF THE STRUCTURE .

STORAGE CAPACITY SUPPLIED = (2) 141.7 c.f. = 283.4 C. F.

STORAGE CAPACITY SUPPLIED =  $\frac{283.4 \text{ C.F.}}{200.0 \text{ C.F.}}$  141.7 % % of Required  
STORAGE REQUIRED

Submitted By:    Larry J. Nardecchia Jr., P.E.

Date:                February 22, 2016

Project No.        2016 - 13



Larry J. Nardecchia Jr., P.E.  
 Consulting Engineer  
 21 McKinley Place  
 Ardsley, New York 10502  
 N.Y.S. License 57560

TEST DATE : February 22, 2016

PROJECT NO. 2016-13

File Number 1613

**PERCOLATION TESTS DATA SHEET**

Owner Oaks-Leaf  
 Address 30 Floral Drive Hastings-on-Hudson , N.Y. 10706  
 Location : #1 center rear yard

Section Block Lot

Watershed Hudson River

**PERCOLATION DATA SHEET**

Hole No.	Run No.	Clock START	Time STOP	Depth To Water		From Grade Stake Drop In Inches	Level Min/In.
				Elapsed Time Minutes	Start Stop Inches		
Hole # 1 31 " deep no water no ledge no roots							
Test Run							
1		9:21 A	9:45 A	24	7.0	10.0	8.0 min/in
2		9:45 A	10:15 A	30	10.0	13.0	10.0 min/in.
3		10:15 A	10:32 A	17	13.0	14.5	11.3 min/in

FOR COMPUTATIONS USE 12.0 MIN./IN.

Notes : 1. Tests to be repeated at the same depths until approx. equal soil values are obtained.

Certified by : Larry J. Nardecchia Jr., P.E.  
 21 McKinley Place  
 Ardsley, N.Y. 10502

Date : February 23, 2016

Project Number 2016-13







looking west 3



North - front



Northwest



Partial south - porch





2nd floor at rear



East - side



looking east 1



looking east 2



Partial South



Southeast



Partial South porch



South - rear



looking north



looking south east 1



looking north 1



looking northwest 1



looking southwest 2



looking southwest



looking west 1



looking west 2



West - side



Southwest