

Biltmore Village Site Map

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Legend

- Study_Limits
- Map Grid

0 75 150 300 Feet



Biltmore Village Site Map

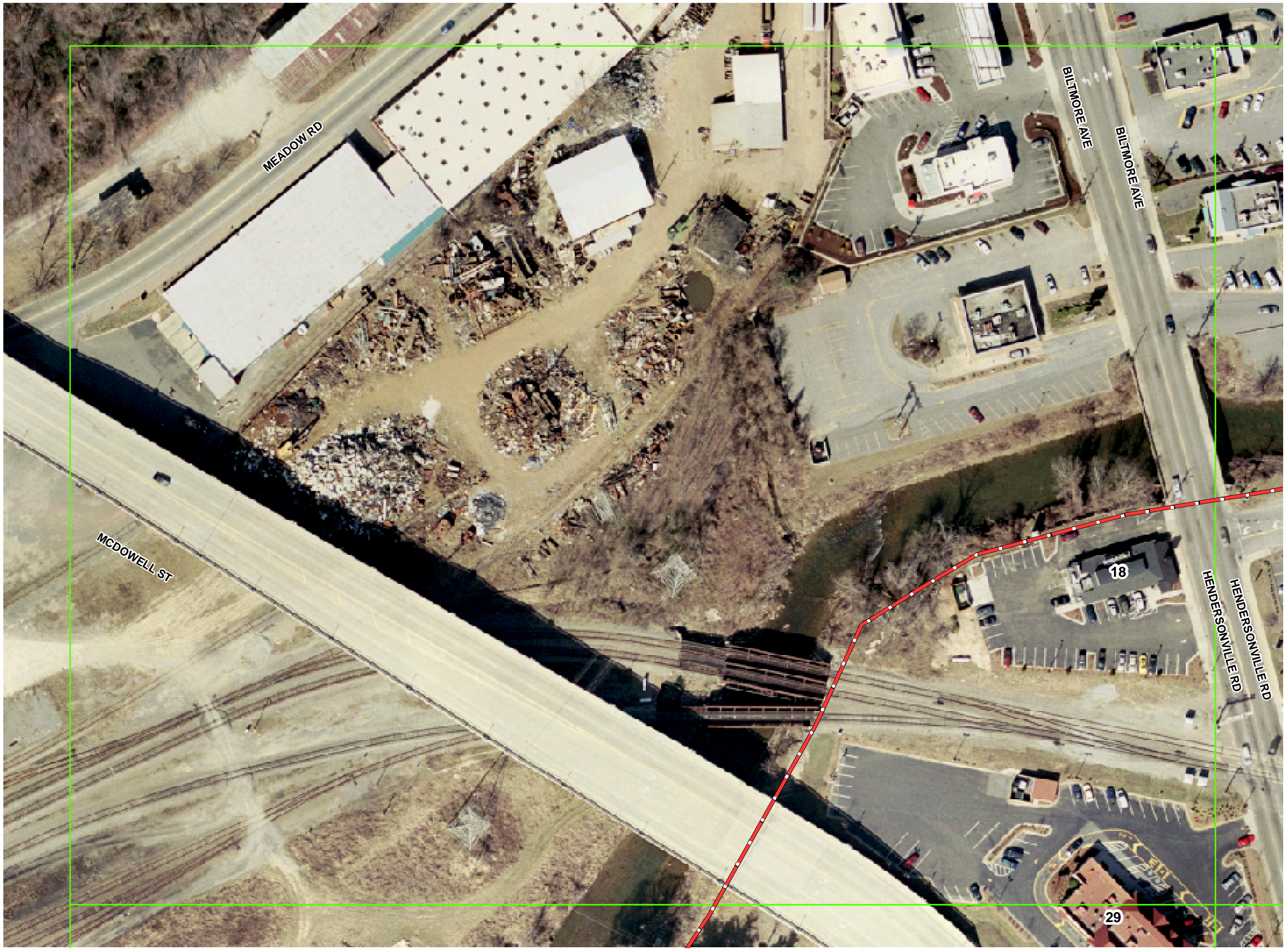
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Legend

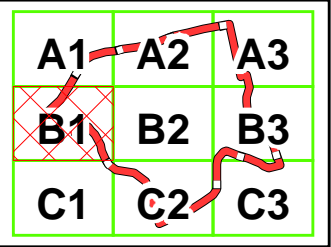
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0 25 50 100 Feet





Biltmore Village Site Map

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Legend

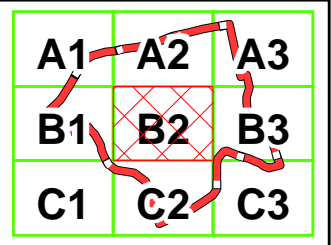
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0 25 50 100 Feet





Biltmore Village Site Map

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



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US Army Corps of Engineers

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Legend



Study_Limits



Map Grid

0 25 50 100 Feet







US Army Corps of Engineers

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Feet







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-  Map Grid



Biltmore Village, Asheville, North Carolina

Structure Address: 14 Village LN, Asheville, NC 28803

Structure ID: 0-3



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-17.97	-19.51
		5-yr	-13.94	-15.48
		10-yr	-11.52	-13.06
		25-yr	-9.73	-11.27
		50-yr	-8.76	-10.3
		100-yr	-7.63	-9.22

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: Village LN, Asheville, NC 28803

Structure ID: 4-9,11



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	2007.09	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	2007.68	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-17.98	-18.57
		5-yr	-13.96	-14.55
		10-yr	-11.53	-12.12
		25-yr	-9.75	-10.34
		50-yr	-8.79	-9.38
		100-yr	-7.71	-8.30

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 160 Hendersonville RD, Asheville, NC 28803

Structure ID:10



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
2007.09		2-yr	-18.01	-18.60
2007.68		5-yr	-14.00	-14.59
		10-yr	-11.57	-12.16
		25-yr	-9.79	-10.38
		50-yr	-8.83	-9.42
		100-yr	-7.76	-8.35

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 71 Thompson ST, Asheville, NC 28803

Structure ID: 12



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1995.76	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.76	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-6.46	-6.46
		5-yr	-2.37	-2.37
		10-yr	0.05	0.05
		25-yr	1.84	1.84
		50-yr	2.83	2.83
		100-yr	3.92	3.92

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 4 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the exterior of the structure with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 22 Garfield ST, Asheville, NC 28803

Structure ID:13



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1990.81	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.40	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-1.46	-6.05
		5-yr	2.65	-1.94
		10-yr	5.07	0.48
		25-yr	6.86	2.27
		50-yr	7.85	3.26
		100-yr	8.94	4.35

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 4 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the exterior of the structure with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 22 Garfield ST, Asheville, NC 28803

Structure ID:14



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-1.66	-5.99
		5-yr	2.47	-1.86
		10-yr	4.90	0.57
		25-yr	6.68	2.35
		50-yr	7.68	3.35
		100-yr	8.77	4.44

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the exterior of the structure with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 22 Garfield ST, Asheville, NC 28803

Structure ID:15



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1991.13	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.27	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-1.99	-4.13
		5-yr	2.03	-0.11
		10-yr	4.46	2.32
		25-yr	6.24	4.10
		50-yr	7.21	5.07
		100-yr	8.29	6.15

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing panel closures for each doorway and window from 1-inch or greater plywood type material. Due to large spans of glass, recommend using commercial closures. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Consider employing a portadam barrier system around the structure, or polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation.

Biltmore Village, Asheville, North Carolina

Structure Address: 22 Garfield ST, Asheville, NC 28803

Structure ID:16



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1990.23	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.21	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-1.04	-6.02
		5-yr	3.01	-1.97
		10-yr	5.42	0.44
		25-yr	7.21	2.23
		50-yr	8.19	3.21
		100-yr	9.28	4.30

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing panel closures for each doorway and window from 1-inch or greater plywood type material. Due to large spans of glass, recommend using commercial closures. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Consider employing a portadam barrier system around the structure, or polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation.

Biltmore Village, Asheville, North Carolina

Structure Address: 22 Garfield ST, Asheville, NC 28803

Structure ID:17



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1990.96	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.00	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-1.69	-5.73
		5-yr	2.39	-1.65
		10-yr	4.81	0.77
		25-yr	6.59	2.55
		50-yr	7.58	3.54
		100-yr	8.67	4.63

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Hendersonville RD, Asheville, NC 28803

Structure ID:18



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1992.97	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1994.59	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.01	-5.63
		5-yr	-0.36	-1.98
		10-yr	2.17	0.55
		25-yr	3.95	2.33
		50-yr	4.87	3.25
		100-yr	5.93	4.31

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 35 Garfield ST, Asheville, NC 28803

Structure ID:19



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
1991.11		2-yr	-1.76	-4.66
1994.01		5-yr	2.35	-0.55
		10-yr	4.77	1.87
		25-yr	6.55	3.65
		50-yr	7.55	4.65
		100-yr	8.64	5.74

Temporary Flood Proofing Measures:

Due to the condition and appearance that this structure is vacant, there are no proposed temporary measures. The depth of flooding is too great to dry flood proof.

Biltmore Village, Asheville, North Carolina

Structure Address: Garfield ST, Asheville, NC 28803

Structure ID:20



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1990.94	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1990.94	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-1.53	-1.53
		5-yr	2.61	2.61
		10-yr	5.04	5.04
		25-yr	6.82	6.82
		50-yr	7.82	7.82
		100-yr	8.91	8.91

Temporary Flood Proofing Measures:

This building appears to be structurally unsound and is thus unfit to implement temporary flood proofing measures.

Biltmore Village, Asheville, North Carolina

Structure Address: 9 Reed ST, Asheville, NC 28803

Structure ID:21



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
1993.69		2-yr	-4.25	-4.25
		5-yr	-0.10	-0.10
		10-yr	2.33	2.33
		25-yr	4.11	4.11
		50-yr	5.11	5.11
		100-yr	6.20	6.20

Temporary Flood Proofing Measures:

Two temporary measures are suggested for this structure: 1) Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting, or 2) consider elevating specific high-value items on the interior of structure. Also recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cutting to size doorway, window or vent closures from 1-inch or greater plywood type material if the structure is to be dry flood proofed. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 26 Hendersonville RD, Asheville, NC 28803

Structure ID: 22 & 26



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.37	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.84	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.33	-4.80
		5-yr	-0.33	-0.80
		10-yr	2.11	1.64
		25-yr	3.88	3.41
		50-yr	4.83	4.36
		100-yr	5.90	5.43

Temporary Flood Proofing Measures:

Recommend dry flood proofing to just below the lower window ledge. Cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ either liquid clear coat sealant over the bricks or polyethylene sheeting (5 mil thickness) around the structure from the lower window ledge to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 22 Lodge ST, Asheville, NC 28803

Structure ID:23



Front View



Right Side View



Back View

n/a

Left Side View

Ground Elev. (NAVD)	1993.11	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1994.40	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.02	-5.31
		5-yr	-0.01	-1.30
		10-yr	2.42	1.13
		25-yr	4.20	2.91
		50-yr	5.16	3.87
		100-yr	6.23	4.94

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. It is critical to place a battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in the structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 26 Lodge ST, Asheville, NC 28803

Structure ID:24



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.34	Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)	1993.73	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.22	-4.61
		5-yr	-0.20	-0.59
		10-yr	2.23	1.84
		25-yr	4.01	3.62
		50-yr	4.98	4.59
		100-yr	6.06	5.67

Temporary Flood Proofing Measures:

Recommend cutting to size doorway and possibly vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Apply liquid clear coat sealant to the surface of the stone, brick or concrete face of the structure to a height of at least 3 feet above the first floor. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 30 Lodge ST, Asheville, NC 28803

Structure ID:25



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.25	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.97	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.07	-4.79
		5-yr	-0.03	-0.75
		10-yr	2.38	1.66
		25-yr	4.18	3.46
		50-yr	5.16	4.44
		100-yr	6.24	5.52

Temporary Flood Proofing Measures:

Recommend protection up to lower ledge of windows. Also recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure. Remove any unnecessary exterior appurtenances.

Biltmore Village, Asheville, North Carolina

Structure Address: 14 Lodge ST, Asheville, NC 28803

Structure ID:27



n/a

Front View

Right Side View



n/a

Back View

Left Side View

Ground Elev. (NAVD)	1993.68	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.68	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.60	-4.60
		5-yr	-0.59	-0.59
		10-yr	1.84	1.84
		25-yr	3.62	3.62
		50-yr	4.58	4.58
		100-yr	5.65	5.65

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. It is critical to place a battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in the structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 14 Lodge ST, Asheville, NC 28803

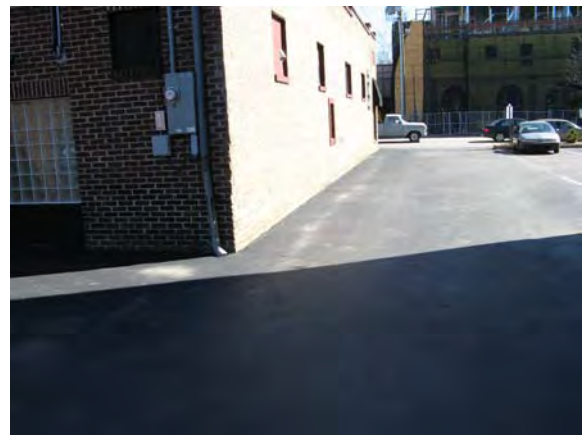
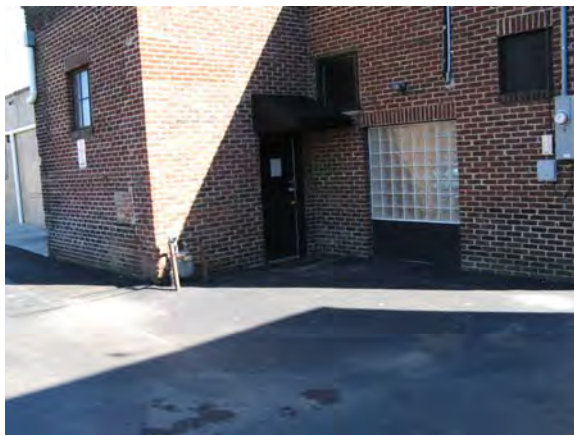
Structure ID:28



n/a

Front View

Right Side View



Back View

Left Side View

Ground Elev. (NAVD)	1993.20	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.20	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.13	-4.13
		5-yr	-0.12	-0.12
		10-yr	2.31	2.31
		25-yr	4.09	4.09
		50-yr	5.04	5.04
		100-yr	6.11	6.11

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. The front windows and doorway will be a problem to protect. Consider portadam, or employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. It is critical to place a battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in the structure

Biltmore Village, Asheville, North Carolina

Structure Address: 35 Hendersonville RD, Asheville, NC 28803

Structure ID:29



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1995.50	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.77	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-6.68	-7.95
		5-yr	-3.34	-4.61
		10-yr	-1.28	-2.55
		25-yr	0.76	-0.51
		50-yr	1.91	0.64
		100-yr	3.00	1.73

Temporary Flood Proofing Measures:

Prepare flood prevention measures to height of lower ledge of windows. Recommend preparing doorway closure panels from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ sandbags in the vicinity of openings. Apply a clear liquid sealant to brick face surrounding structure (to a height of at least 2 feet above the first floor) to prevent infiltration of floodwaters. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 4 Brook ST, Asheville, NC 28803

Structure ID:31



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.23	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1994.08	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.01	-4.86
		5-yr	0.04	-0.81
		10-yr	2.46	1.61
		25-yr	4.25	3.40
		50-yr	5.23	4.38
		100-yr	6.32	5.47

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 2 Lodge ST, Asheville, NC 28803

Structure ID:36



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-0.62	-0.62
		5-yr	2.59	2.59
		10-yr	4.49	4.49
		25-yr	6.28	6.28
		50-yr	7.33	7.33
		100-yr	8.34	8.34

Temporary Flood Proofing Measures:

Due to excessive depth of flooding, recommend building owner create evacuation checklist to remove specific items from threat of flooding. Consider moving items to higher remote location rather than placing at higher interior elevation.

Biltmore Village, Asheville, North Carolina

Structure Address: 13 Kitchen PL, Asheville, NC 28803

Structure ID:37



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.66	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.90	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.56	-7.80
		5-yr	-0.54	-3.78
		10-yr	1.89	-1.35
		25-yr	3.67	0.43
		50-yr	4.64	1.40
		100-yr	5.71	2.47

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend cutting to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Apply water resistant sealant to exterior brick, stone and concrete surfaces to a height of at least 30 inches above the first floor. Hydrostatic forces on basement walls will be extremely high. Suggest evacuating equipment and other valuable materials from basement prior to flood event. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 10 Biltmore PZ, Asheville, NC 28803

Structure ID:39



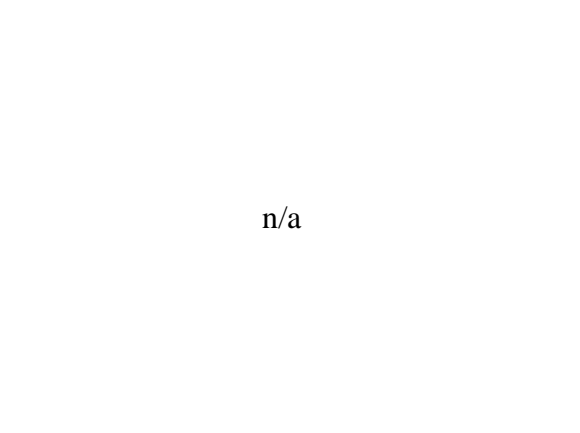
Front View



Front View



Right Side View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
1994.81		2-yr	-5.61	-7.01
1996.21		5-yr	-1.56	-2.96
		10-yr	0.86	-0.54
		25-yr	2.65	1.25
		50-yr	3.63	2.23
		100-yr	4.72	3.32

Temporary Flood Proofing Measures:

The basement in Structure #40 could cause adverse impacts on this structure (#39) and #40 during a flood event. Recommend evacuation of contents during flood. Owner should prepare checklist of items to be evacuated from structure prior to flood event.

Biltmore Village, Asheville, North Carolina

Structure Address: 10 Biltmore PZ, Asheville, NC 28803

Structure ID:40



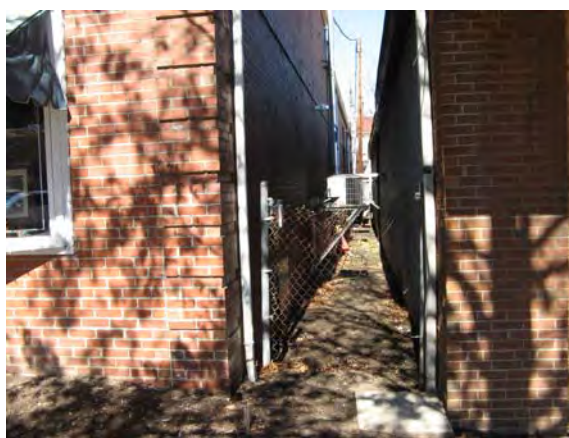
Front View



Right Side View View



Right Side View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
		2-yr	-4.13	-7.10
		5-yr	-0.07	-3.04
		10-yr	2.35	-0.62
		25-yr	4.13	1.16
		50-yr	5.12	2.15
		100-yr	6.21	3.24

Temporary Flood Proofing Measures:

This structure contains a full basement which is susceptible to extremely high hydrostatic forces during a flood event. The contents of the basement should be removed prior to a flood. The owner should prepare a checklist of specific items located on the first floor to be removed during a flood event.

Biltmore Village, Asheville, North Carolina

Structure Address: 7 Boston WAY, Asheville, NC 28803

Structure ID:42



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1994.40	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1994.81	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-5.29	-5.70
		5-yr	-1.27	-1.68
		10-yr	1.16	0.75
		25-yr	2.94	2.53
		50-yr	3.91	3.50
		100-yr	4.99	4.58

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend applying liquid clear coat water resistant sealant to the exterior brick, stone, or concrete surfaces located below the lower window ledge. Prepare closure panels for doorways or vent openings from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure. For seepage through the brick-on-sand sidewalks, place polyethylene sheeting across sidewalk and one layer of sandbags along each edge atop the sheeting.

Biltmore Village, Asheville, North Carolina

Structure Address: 7 Boston Way Asheville, NC 28803

Structure ID:43



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1994.40	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.96	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-5.34	-6.90
		5-yr	-1.33	-2.89
		10-yr	1.10	-0.46
		25-yr	2.88	1.32
		50-yr	3.83	2.27
		100-yr	4.90	3.34

Temporary Flood Proofing Measures:

Recommend dry flood proofing protection from the ground up to the lower window ledge. Apply liquid clear coat sealant to the exterior brick, stone, or concrete surfaces around exterior of structure up to the lower window ledge. Prepare closure panels for doorways or vent openings from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure. For seepage through the brick-on-sand sidewalks, place polyethylene sheeting across sidewalk and one layer of sandbags along each edge atop the sheeting.

Biltmore Village, Asheville, North Carolina

Structure Address: 2 Swann ST, Asheville, NC 28803

Structure ID:44



Front View

n/a

Right Side View

n/a



Back View

Left Side View

Ground Elev. (NAVD)	1992.67	Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)	1994.32	Flood Event	Ground	1 st Floor
		2-yr	-3.43	-5.08
		5-yr	0.64	-1.01
		10-yr	3.06	1.41
		25-yr	4.84	3.19
		50-yr	5.83	4.18
		100-yr	6.92	5.27

Temporary Flood Proofing Measures:

At the time of the site visit assessment, this structure was unoccupied. Recommend either: 1) opening structure for wet proofing, or 2) preparing up to 4 feet of leveled access around all exposed sides of structure, cutting to size doorway, window or vent closures from 1-inch or greater plywood type material (maximum horizontal or vertical span is three feet; additional supports are required for larger spans), and employing polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. For this second measure, place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Lodge ST, Asheville, NC 28803

Structure ID:45



Front View



Right Side View

n/a



Back View

Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
1989.09		2-yr	-0.37	-0.75
1989.47		5-yr	2.84	2.46
		10-yr	4.74	4.36
		25-yr	6.53	6.15
		50-yr	7.58	7.20
		100-yr	8.59	8.21

Temporary Flood Proofing Measures:

Based upon the depth of flooding (8.21 feet at the 100-year flood event), it is recommended that prior to a flood event an evacuation plan be developed which would consider moving specific contents away from the structure to a location of safety or to elevate contents to an height within the structure which would be above the flood threat elevation.

Biltmore Village, Asheville, North Carolina

Structure Address: 4 Swann ST, Asheville, NC 28803

Structure ID:46



Front View



Right Side View



Right Side View



Left Side View

Ground Elev. (NAVD)	1993.61	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1994.27	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.38	-5.04
		5-yr	-0.32	-0.98
		10-yr	2.09	1.43
		25-yr	3.88	3.22
		50-yr	4.87	4.21
		100-yr	5.95	5.29

Temporary Flood Proofing Measures:

For this slab on grade structure, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cutting to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 40 All Souls Cres, Asheville, NC 28803

Structure ID:48



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1995.35	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.85	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-6.63	-7.13
		5-yr	-3.42	-3.92
		10-yr	-1.52	-2.02
		25-yr	0.27	-0.23
		50-yr	1.32	0.82
		100-yr	2.33	1.83

Temporary Flood Proofing Measures:

To obtain the highest level of protection possible, recommend preparing closure panels cut to size for doorway, window or vent openings from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Also, employ either: 1) liquid clear coat sealant applied to the exterior brick, stone or concrete face, to a height of at least 2 feet above the first floor, or 2) polyethylene sheeting (5 mil thickness) around the structure from a height of at least 2 feet above the first floor to at least 3 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. For either measure, place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Swann ST, Asheville, NC 28803

Structure ID:49



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1992.05	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.08	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-2.80	-5.83
		5-yr	1.28	-1.75
		10-yr	3.69	0.66
		25-yr	5.48	2.45
		50-yr	6.47	3.44
		100-yr	7.55	4.52

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, within the crawlspace of the structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Angle ST, Asheville, NC 28803

Structure ID:50



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1996.44	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.44	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-7.36	-7.36
		5-yr	-3.35	-3.35
		10-yr	-0.92	-0.92
		25-yr	0.86	0.86
		50-yr	1.82	1.82
		100-yr	2.89	2.89

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet. Additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above the first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Kitchen PL, Asheville, NC 28803

Structure ID:51



Front View

n/a

Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
1995.00		2-yr	-5.83	-6.09
		5-yr	-1.79	-2.05
		10-yr	0.63	0.37
		25-yr	2.42	2.16
		50-yr	3.40	3.14
		100-yr	4.48	4.22

Temporary Flood Proofing Measures:

Due to large glass panels, recommend dry flood proofing to the 25-year level of protection (about 30 inches above the first floor). Cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is 3 feet; additional supports are required for larger spans. Also, employ either: 1) liquid clear coat sealant around structure to a height of at least 30 inches above first floor, 2) the joint purchase of a portadam system by business owners, or 3) polyethylene sheeting (5 mil thickness) around structure from a height of at least 30 inches above first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Kitchen PL, Asheville, NC 28803

Structure ID:52



n/a

Front View

Right Side View



n/a

Back View

Left Side View

Ground Elev. (NAVD)	1995.50	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.86	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-6.34	-6.70
		5-yr	-2.30	-2.66
		10-yr	0.11	-0.25
		25-yr	1.90	1.54
		50-yr	2.88	2.52
		100-yr	3.96	3.60

Temporary Flood Proofing Measures:

Due to large glass panels, recommend dry flood proofing to the 25-year level of protection (about 2 feet above first floor). Cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Also, employ either: 1) liquid clear coat sealant around structure to a height of at least 2 feet above first floor, 2) the joint purchase of a portadam system by business owners, or 3) polyethylene sheeting (5 mil thickness) around structure from a height of at least 2 feet above first floor to at least 3 feet (on the ground) from the structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Kitchen PL, Asheville, NC 28803

Structure ID: 53



Front View



Right Side View



Back View

n/a

Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
1996.11		2-yr	-6.96	-7.38
		5-yr	-2.92	-3.34
		10-yr	-0.50	-0.92
		25-yr	1.28	0.86
		50-yr	2.26	1.84
		100-yr	3.34	2.92

Temporary Flood Proofing Measures:

Due to large glass panels, recommend dry flood proofing to the 25-year level of protection (about 1 foot above first floor). Cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is 3 feet; additional supports are required for larger spans. Also, employ either: 1) liquid clear coat sealant around structure to a height of at least 1 foot above first floor, 2) the joint purchase of a portadam system by business owners, or 3) polyethylene sheeting (5 mil thickness) around the structure from a height of at least 1 foot above the first floor to at least 2 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 3 Swann ST, Asheville, NC 28803

Structure ID: 54



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1992.69	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.72	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.45	-6.48
		5-yr	0.61	-2.42
		10-yr	3.03	0.00
		25-yr	4.82	1.79
		50-yr	5.80	2.77
		100-yr	6.89	3.86

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Use sandbags to wrap front porch. Remove rear access if possible during flood preparation to apply polyethylene. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 2 All Souls Crescent CRES, Asheville, NC 28803

Structure ID: 55



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1991.54	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1994.51	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-2.28	-5.25
		5-yr	1.80	-1.17
		10-yr	4.22	1.25
		25-yr	6.00	3.03
		50-yr	6.99	4.02
		100-yr	8.08	5.11

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags placed along outer edge atop the sheeting. Use sandbags to wrap front porch. Remove rear access if possible during flood preparation to apply polyethylene. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 71 Hendersonville RD, Asheville, NC 28803

Structure ID: 56



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.33	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1997.93	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.49	-9.09
		5-yr	-4.99	-5.59
		10-yr	-2.66	-3.26
		25-yr	-0.76	-1.36
		50-yr	0.24	-0.36
		100-yr	1.33	0.73

Temporary Flood Proofing Measures:

Cut to size doorway or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Apply liquid clear coat sealant to exterior brick, stone or concrete face to a height of at least 1 foot above first floor. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 18 Brook ST, Asheville, NC 28803

Structure ID: 59, 62-65, 67-70, 77, & 79-81



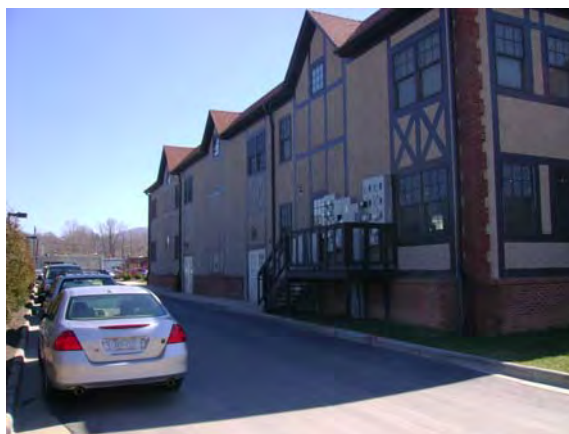
Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1992.49	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1999.53	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.16	-10.20
		5-yr	0.95	-6.09
		10-yr	3.37	-3.67
		25-yr	5.16	-1.88
		50-yr	6.15	-0.89
		100-yr	7.24	0.20

Temporary Flood Proofing Measures:

Recommend using up to two layers of sandbags across doorways to prevent infiltration of floodwaters.

Biltmore Village, Asheville, North Carolina

Structure Address: 5 Boston WAY, Asheville, NC 28803

Structure ID:60



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.69	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.75	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.47	-7.53
		5-yr	-0.41	-3.47
		10-yr	2.01	-1.05
		25-yr	3.80	0.74
		50-yr	4.78	1.72
		100-yr	5.87	2.81

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, within the crawlspace of the structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 4 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:61



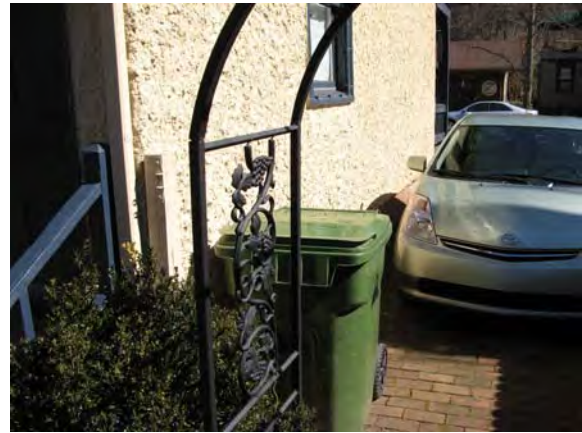
Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1992.30	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1994.11	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.06	-4.87
		5-yr	1.01	-0.80
		10-yr	3.42	1.61
		25-yr	5.21	3.40
		50-yr	6.20	4.39
		100-yr	7.29	5.48

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, within the crawlspace of the structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 Angle ST, Asheville, NC 28803

Structure ID:66



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.38	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1998.84	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.34	-9.80
		5-yr	-4.34	-5.80
		10-yr	-1.91	-3.37
		25-yr	-0.13	-1.59
		50-yr	0.82	-0.64
		100-yr	1.89	0.43

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of at least 1 foot above first floor to at least 2 feet (on the ground) from structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:71



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1991.52	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.84	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-2.25	-4.57
		5-yr	1.84	-0.48
		10-yr	4.25	1.93
		25-yr	6.04	3.72
		50-yr	7.03	4.71
		100-yr	8.12	5.80

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from the height of the lower window ledge to 4 feet (on the ground) from the structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:72



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1991.52	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.79	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-2.25	-4.52
		5-yr	1.82	-0.45
		10-yr	4.24	1.97
		25-yr	6.03	3.76
		50-yr	7.02	4.75
		100-yr	8.10	5.83

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from the height of the lower window ledge to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:73



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1991.52	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.63	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-2.26	-4.37
		5-yr	1.81	-0.30
		10-yr	4.23	2.12
		25-yr	6.02	3.91
		50-yr	7.01	4.90
		100-yr	8.09	5.98

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of the lower window ledge to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 1 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:74



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1991.52	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1993.85	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-2.27	-4.60
		5-yr	1.80	-0.53
		10-yr	4.22	1.89
		25-yr	6.01	3.68
		50-yr	7.00	4.67
		100-yr	8.08	5.75

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of the lower window ledge to 4 feet (on the ground) from the structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 3 Boston WAY, Asheville, NC 28803

Structure ID:75



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.20	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.20	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.98	-6.98
		5-yr	0.09	-2.91
		10-yr	2.50	-0.50
		25-yr	4.29	1.29
		50-yr	5.28	2.28
		100-yr	6.36	3.36

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet.; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around the structure from a height of 3 feet above first floor to 4 feet (on the ground) from the structure exterior with one layer of sandbags along outer edge atop the sheeting. Use sandbags to wrap front porch. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina**Structure Address:** 18 Brook ST, Asheville, NC 28803**Structure ID:**76

No Photo

Front View

Right Side View

Back View

Left Side View

Ground Elev. (NAVD)	1992.49	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1999.53	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.16	-10.20
		5-yr	0.95	-6.09
		10-yr	3.37	-3.67
		25-yr	5.16	-1.88
		50-yr	6.15	-0.89
		100-yr	7.24	0.20

Temporary Flood Proofing Measures:

Recommend using up to two layers of sandbags across doorways to prevent infiltration of floodwaters.

Biltmore Village, Asheville, North Carolina

Structure Address: 18 Brook ST, Asheville, NC 28803

Structure ID:77

See Structure ID: 59

Front View

Right Side View

Back View

Left Side View

Ground Elev. (NAVD)

1992.49

Depth of Flooding (ft)

1st Floor Elev. (NAVD)

1999.53

Flood Event

Ground

1st Floor

2-yr

-3.16

-10.20

5-yr

0.94

-6.10

10-yr

3.36

-3.68

25-yr

5.14

-1.90

50-yr

6.14

-0.90

100-yr

7.22

0.18

Temporary Flood Proofing Measures:

Recommend using up to two layers of sandbags across doorways to prevent infiltration of floodwaters.

Biltmore Village, Asheville, North Carolina

Structure Address: 11 Kitchen PL, Asheville, NC 28803

Structure ID:78



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.70	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1998.60	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.57	-9.47
		5-yr	-4.55	-5.45
		10-yr	-2.12	-3.02
		25-yr	-0.34	-1.24
		50-yr	0.63	-0.27
		100-yr	1.71	0.81

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of at least 1 foot above first floor to at least 2 feet (on the ground) from the structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 18 Brook ST, Asheville, NC 28803				
Structure ID: 79				
See Structure ID: 59				
Front View		Right Side View		
Back View		Left Side View		
Ground Elev. (NAVD)	1992.49	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1999.53	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.15	-10.19
		5-yr	0.95	-6.09
		10-yr	3.37	-3.67
		25-yr	5.16	-1.88
		50-yr	6.15	-0.89
		100-yr	7.24	0.20
<p>Temporary Flood Proofing Measures:</p> <p>Recommend using up to two layers of sandbags across doorways to prevent infiltration of floodwaters.</p>				

Biltmore Village, Asheville, North Carolina

Structure Address: 18 Brook ST, Asheville, NC 28803

Structure ID:80

See Structure ID: 59

Front View

Right Side View

Back View

Left Side View

Ground Elev. (NAVD)

1992.49

Depth of Flooding (ft)

1st Floor Elev. (NAVD)

1999.53

Flood Event

Ground

1st Floor

2-yr

-3.16

-10.20

5-yr

0.94

-6.10

10-yr

3.36

-3.68

25-yr

5.15

-1.89

50-yr

6.14

-0.90

100-yr

7.23

0.19

Temporary Flood Proofing Measures:

Recommend using up to two layers of sandbags across doorways to prevent infiltration of floodwaters.

Biltmore Village, Asheville, North Carolina**Structure Address:** 18 Brook ST, Asheville, NC 28803**Structure ID:**81

See Structure ID: 59

Front View

Right Side View

Back View

Left Side View

Ground Elev. (NAVD)	1992.49	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1999.53	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.16	-10.20
		5-yr	0.94	-6.10
		10-yr	3.36	-3.68
		25-yr	5.15	-1.89
		50-yr	6.14	-0.90
		100-yr	7.23	0.19

Temporary Flood Proofing Measures:

Recommend using up to two layers of sandbags across doorways to prevent infiltration of floodwaters.

Biltmore Village, Asheville, North Carolina

Structure Address: 36 All Souls CRES, Asheville, NC 28803

Structure ID:82



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1995.63	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.10	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-6.89	-7.36
		5-yr	-3.65	-4.12
		10-yr	-1.68	-2.15
		25-yr	0.22	-0.25
		50-yr	1.31	0.84
		100-yr	2.33	1.86

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1 inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of at least 2 feet above first floor to at least 3 feet (on the ground) from structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 2 Boston WAY, Asheville, NC 28803

Structure ID:83



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1994.80	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.72	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-5.62	-6.54
		5-yr	-1.58	-2.50
		10-yr	0.84	-0.08
		25-yr	2.63	1.71
		50-yr	3.61	2.69
		100-yr	4.69	3.77

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, within the crawlspace of the structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 6 Boston WAY, Asheville, NC 28803

Structure ID:84



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.70	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.40	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.51	-6.21
		5-yr	-0.47	-2.17
		10-yr	1.95	0.25
		25-yr	3.74	2.04
		50-yr	4.72	3.02
		100-yr	5.81	4.11

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, within the crawlspace of the structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 63 Brook ST, Asheville, NC 28803

Structure ID:85



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.81	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1997.81	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.49	-8.49
		5-yr	-4.39	-4.39
		10-yr	-1.96	-1.96
		25-yr	-0.18	-0.18
		50-yr	0.81	0.81
		100-yr	1.90	1.90

Temporary Flood Proofing Measures:

Recommend businesses work together to use sandbags to provide 100-year level of protection.

Biltmore Village, Asheville, North Carolina

Structure Address: 5 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:86



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1992.94	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.73	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.71	-6.50
		5-yr	0.36	-2.43
		10-yr	2.78	-0.01
		25-yr	4.57	1.78
		50-yr	5.55	2.76
		100-yr	6.64	3.85

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags along the outer edge atop the sheeting. Use sandbags to wrap front porch. Remove rear access if possible during flood preparation to apply polyethylene. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 9 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:87



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.94	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1999.25	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.80	-10.11
		5-yr	-4.76	-6.07
		10-yr	-2.34	-3.65
		25-yr	-0.56	-1.87
		50-yr	0.42	-0.89
		100-yr	1.50	0.19

Temporary Flood Proofing Measures:

Provide one row of sandbags across doorway.

Biltmore Village, Asheville, North Carolina

Structure Address: 2 Sweeten Creek RD, Asheville, NC 28803

Structure ID:88



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1994.55	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.94	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-5.20	-7.59
		5-yr	-1.08	-3.47
		10-yr	1.34	-1.05
		25-yr	3.12	0.73
		50-yr	4.12	1.73
		100-yr	5.21	2.82

Temporary Flood Proofing Measures:

Due to excessive size of glass windows, recommend protecting to lower window ledge. Apply liquid clear coat sealant to exterior surface of stone, brick or concrete. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

For greater level of protection, consider using sandbag wall.

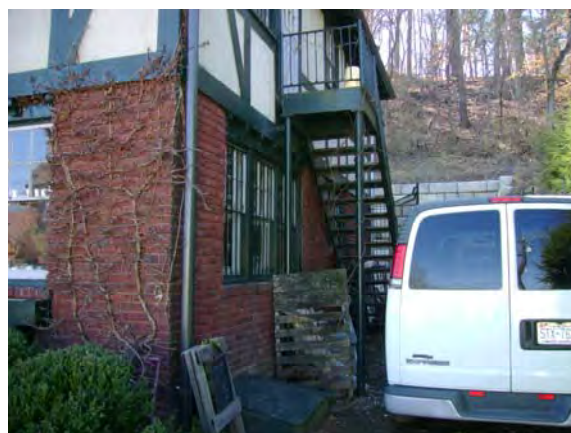
Biltmore Village, Asheville, North Carolina

Structure Address: 34 All Souls CRES, Asheville, NC 28803

Structure ID:89



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.84	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	2000.26	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-9.11	-11.53
		5-yr	-5.90	-8.32
		10-yr	-3.98	-6.40
		25-yr	-2.15	-4.57
		50-yr	-1.08	-3.50
		100-yr	-0.08	-2.50

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 6 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:90



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.17	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.20	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.96	-6.99
		5-yr	0.10	-2.93
		10-yr	2.51	-0.52
		25-yr	4.31	1.28
		50-yr	5.29	2.26
		100-yr	6.37	3.34

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Use sandbags to wrap front porch. Remove rear access if possible during flood preparation to apply polyethylene. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 32 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:91



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-10.50	-10.50
		5-yr	-7.20	-7.20
		10-yr	-5.17	-5.17
		25-yr	-3.20	-3.20
		50-yr	-2.08	-2.08
		100-yr	-1.05	-1.05

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation.
No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 3 Angle ST, Asheville, NC 28803

Structure ID:92



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1998.02	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1998.54	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.89	-9.41
		5-yr	-4.86	-5.38
		10-yr	-2.44	-2.96
		25-yr	-0.65	-1.17
		50-yr	0.32	-0.20
		100-yr	1.40	0.88

Temporary Flood Proofing Measures:

Place sandbags across doorways and place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 99999 All Souls CIR, Asheville, NC 28803

Structure ID:93



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	2001.18	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	2002.67	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-12.11	-13.60
		5-yr	-8.11	-9.60
		10-yr	-5.67	-7.16
		25-yr	-3.90	-5.39
		50-yr	-2.94	-4.43
		100-yr	-1.87	-3.36

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 7 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:94



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.84	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1997.51	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-4.64	-8.31
		5-yr	-0.59	-4.26
		10-yr	1.82	-1.85
		25-yr	3.61	-0.06
		50-yr	4.60	0.93
		100-yr	5.68	2.01

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of at least 2 feet above first floor to at least 3 feet (on the ground) from structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Use sandbags to wrap front porch. Remove rear access if possible during flood preparation to apply polyethylene. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 97 Hendersonville RD, Asheville, NC 28803

Structure ID:95



Front View

Right Side View

Back View

Left Side View

Ground Elev. (NAVD)	1997.48	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1997.48	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.55	-8.55
		5-yr	-4.91	-4.91
		10-yr	-2.39	-2.39
		25-yr	-0.60	-0.60
		50-yr	0.32	0.32
		100-yr	1.38	1.38

Temporary Flood Proofing Measures:

No measure recommended.

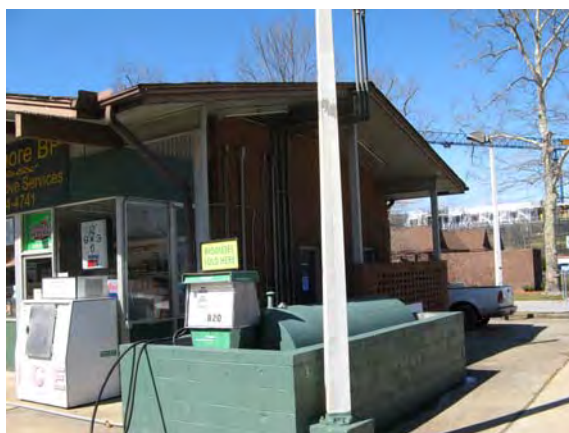
Biltmore Village, Asheville, North Carolina

Structure Address: 97 Hendersonville RD, Asheville, NC 28803

Structure ID:96



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.48	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1997.95	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.55	-9.02
		5-yr	-4.91	-5.38
		10-yr	-2.38	-2.85
		25-yr	-0.59	-1.06
		50-yr	0.32	-0.15
		100-yr	1.38	0.91

Temporary Flood Proofing Measures:

Recommend using sandbags across doorways and other openings.

Biltmore Village, Asheville, North Carolina

Structure Address: 10 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:97



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1995.37	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1998.36	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-6.20	-9.19
		5-yr	-2.16	-5.15
		10-yr	0.26	-2.73
		25-yr	2.05	-0.94
		50-yr	3.03	0.04
		100-yr	4.11	1.12

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of at least 18 inches above first floor to at least 3 feet (on the ground) from structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Use sandbags to wrap front porch. Remove rear access if possible during flood preparation to apply polyethylene. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 10 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:98



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1995.50	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1996.23	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-6.33	-7.06
		5-yr	-2.29	-3.02
		10-yr	0.12	-0.61
		25-yr	1.92	1.19
		50-yr	2.89	2.16
		100-yr	3.98	3.25

Temporary Flood Proofing Measures:

In order to obtain the highest level of protection possible, recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1 inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Biltmore Village, Asheville, North Carolina

Structure Address: 2 Village LN, Asheville, NC 28803

Structure ID:100



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1999.64	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1999.64	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-10.46	-10.46
		5-yr	-6.41	-6.41
		10-yr	-4.00	-4.00
		25-yr	-2.21	-2.21
		50-yr	-1.23	-1.23
		100-yr	-0.14	-0.14

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 12 All Souls Crescent CRES, Asheville, NC 28803

Structure ID:101



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1997.99	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1999.81	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-8.85	-10.67
		5-yr	-4.81	-6.63
		10-yr	-2.39	-4.21
		25-yr	-0.61	-2.43
		50-yr	0.37	-1.45
		100-yr	1.45	-0.37

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 20 All Souls CRES, Asheville, NC 28803

Structure ID:103



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	2001.96	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	2002.49	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-12.87	-13.40
		5-yr	-8.85	-9.38
		10-yr	-6.42	-6.95
		25-yr	-4.64	-5.17
		50-yr	-3.68	-4.21
		100-yr	-2.60	-3.13

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 124 Hendersonville RD, Asheville, NC 28803

Structure ID:104



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
2007.78		2-yr	-18.74	-19.85
2008.89		5-yr	-14.74	-15.85
		10-yr	-12.31	-13.42
		25-yr	-10.53	-11.64
		50-yr	-9.58	-10.69
		100-yr	-8.51	-9.62

Temporary Flood Proofing Measures:

The first floor of this structure is located above the 100-year water surface elevation. No temporary measures are required.

Biltmore Village, Asheville, North Carolina

Structure Address: 0 , Asheville, NC 28803

Structure ID:105



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1987.48	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1987.90	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	1.01	0.59
		5-yr	4.14	3.72
		10-yr	5.94	5.52
		25-yr	7.62	7.20
		50-yr	8.64	8.22
		100-yr	9.62	9.20

Temporary Flood Proofing Measures:

Due to excessive depth of flooding, recommend that building owner create evacuation checklist to remove specific items from threat of flooding. Consider removing items to remote location rather than placing at higher interior elevation.

Biltmore Village, Asheville, North Carolina

Structure Address: 2 London RD, Asheville, NC 28803

Structure ID:106



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)		Depth of Flooding (ft)		
1 st Floor Elev. (NAVD)		Flood Event	Ground	1 st Floor
		2-yr	-8.08	-8.47
		5-yr	-3.98	-4.37
		10-yr	-1.56	-1.95
		25-yr	0.23	-0.16
		50-yr	1.22	0.83
		100-yr	2.31	1.92

Temporary Flood Proofing Measures:

Recommend using sandbags across doorways and other openings.

Biltmore Village, Asheville, North Carolina

Structure Address: 4 Brook ST, Asheville, NC 28803

Structure ID:107



Front View



Right Side View



Back View



Left Side View

Ground Elev. (NAVD)	1993.16	<u>Depth of Flooding (ft)</u>		
1 st Floor Elev. (NAVD)	1995.97	<u>Flood Event</u>	<u>Ground</u>	<u>1st Floor</u>
		2-yr	-3.93	-6.74
		5-yr	0.14	-2.67
		10-yr	2.55	-0.26
		25-yr	4.34	1.53
		50-yr	5.33	2.52
		100-yr	6.41	3.60

Temporary Flood Proofing Measures:

Recommend preparing up to 3 feet of leveled access around all exposed sides of structure and cut to size doorway, window or vent closures from 1-inch or greater plywood type material. Maximum horizontal or vertical span is three feet; additional supports are required for larger spans. Employ polyethylene sheeting (5 mil thickness) around structure from a height of 3 feet above first floor to 4 feet (on the ground) from structure exterior with one layer of sandbags placed along the outer edge atop the sheeting. Use sandbags to wrap front porch. Remove rear access if possible during flood preparation to apply polyethylene. Place battery operated sump pump, one per every 2000 square feet of space, on lowest elevation obtainable in structure.

Appendix B: Permanent Flood Proofing Measures

1.0 General

The responsibility for flood proofing, including the detailed planning, the purchasing of flood proofing materials and the implementation of flood proofing, lies solely with the owner, tenant or resident of each structure. To offer as many options as possible to the stakeholders in Biltmore Village, this EFRP contains both temporary (Appendix A) and permanent (this Appendix B) flood proofing measures. This appendix provides information and recommendations on permanent flood proofing; structure-specific information and flood proofing guidance are presented at the end of this appendix.

Permanent flood proofing measures are those which are implemented once yet provide protection against flood events for many years in the future. You should weigh the costs associated with implementing temporary flood proofing measures numerous times as opposed to the long-term security and peace of mind that can come with implementing permanent measures. It is recommended that you transition to more permanent flood prevention measures as soon as reasonably possible.

As discussed in detail in the body of this plan, almost all of Biltmore Village is listed in the National Register of Historic Places (NR), as well as being a locally designated Historic District (LHD) by the City of Asheville. The Biltmore Estate is a National Historic Landmark (NHL); its gatehouse is located within the study area. Owners of buildings listed in the NR or buildings that contribute to the historic district or an NHL are advised to consult with the North Carolina State Historic Preservation Office before undertaking any permanent flood mitigation measures. Furthermore, building owners in the Biltmore Village LHD must obtain a Certificate of Appropriateness (COA) from the Asheville Historic Resources Commission (HRC) before undertaking any exterior alterations. A COA is required for any alterations to the exterior of the structure, including placement of hooks or bolts for use in temporary flood proofing. An application for a minor work COA can be obtained by contacting the HRC or visiting their website.

It should be noted that the Federal Emergency Management Agency (FEMA) which regulates the National Flood Insurance Program considers flood proofing to be a viable option to paying for flood insurance. FEMA requires that a structure be protected up to the 100-year level of protection. However, some municipalities have more strict regulations. The municipality's more strict regulations would govern over the less strict national regulations.

Permanent mitigation measures for existing flood-prone buildings include: 1) removing such buildings from the flood plain, 2) relocating them from the flood plain, 3) water proofing them with permanent materials to keep flood waters out (dry flood proofing), 4) modifying them so that flood waters entering will not cause damage (wet flood proofing), 5) raising them above a design flood level (elevating), and 6) constructing

berms, levees or floodwalls to protect individual buildings. The characteristics of each individual building, the characteristics of the site and characteristics of the flood all determine whether a structure can be flood proofed and what flood proofing measure is most efficient. Except for removal/relocation, the different mitigation methods will provide protection up to a design depth of flooding. Once the design flood level for flood proofing is exceeded, significant flood damages can occur. The different mitigation methods for buildings are discussed in the following sections.

2.0 Permanent Mitigation Methods

2.1 Acquisition and Removal of Flood-Prone Buildings

This measure is often referred to as a buy-out. A government agency offers owners to purchase their flood-prone buildings on a strictly voluntary basis. Flood-prone buildings that are acquired may either be moved out of the flood plain or demolished and the site cleared. In either case, all future flood damages to the building are eliminated. The cleared land can be used as part of a community park or recreation area or for some other function that is compatible with flooding. According to federal regulation, the sites of the buildings acquired with federal funds must become permanent open space for future flood flows.

2.2 Relocation

In relocation, the owner moves a building to a location outside the flood hazard area. This differs from a buy-out in that the building remains in private ownership, even if a government agency provides financial assistance with the relocation. Standard house-moving techniques are used for this method. Relocation is the ultimate option for the property owner who worries about flooding and wishes to be free of flood damages.

2.3 Dry Flood Proofing

Permanent dry flood proofing involves sealing the walls of buildings with waterproofing compounds, impermeable sheeting or other permanent materials and using water-tight closures on doorways and other openings to prevent floodwaters from entering. Check valves (one-way valves) are fitted on sewer lines to prevent backup and flooding through the sewers. Generally, dry flood proofing should only be used on buildings constructed of reinforced concrete, concrete block or brick veneer on a wood frame. A general concept of how dry flood proofing works is shown in Figure B-1. Dry flood proofing is not recommended for buildings with basements or for flood depths greater than three feet because of the danger of structural failure from the hydrostatic forces. It is recommended that you have the structure evaluated by a contractor or certified professional prior to placing a substantial hydrostatic load on the building. The Corps also recommends the installation of sump pumps in Biltmore Village.

A real world example of dry flood proofing is shown in Figure B-2.

The Corps recommends that any unneeded openings in a structure such as doors and windows be removed because any opening will require a closure structure, an example of which is shown in Figure B-3. Removal or alteration of such openings should first be reviewed by the Historic Resources Commission.

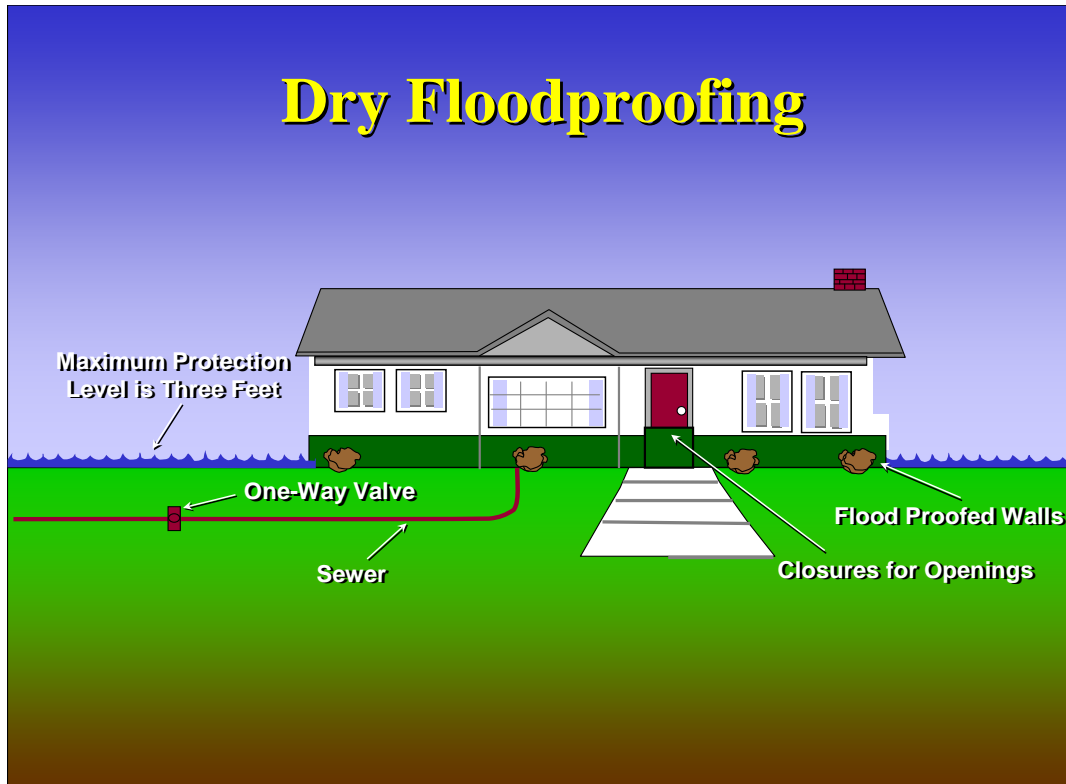


Figure B-1. Computer rendition of how dry flood proofing is implemented.

Figure B-2. Typical Dry Flood Proofing Example



During Construction. Notice the black flood proofing material behind the brick veneer.



After Construction. The fact that this structure has been retrofitted with flood proofing is barely noticeable.

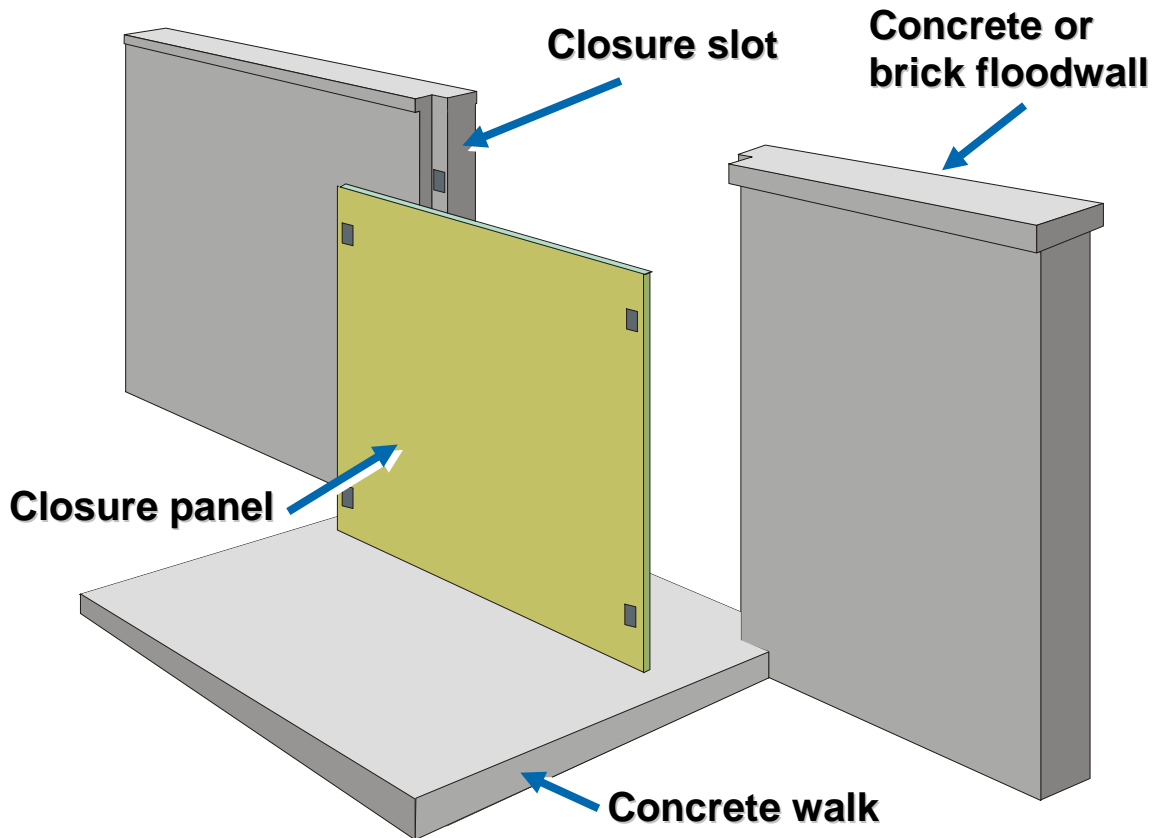


Figure B-3. Example of a closure structure

2.4 Wet Flood Proofing

Wet flood proofing allows a building to flood inside while ensuring that there is minimal damage to the building and its contents. Wet flood proofing is suitable for buildings with basements that have floor elevations above the design flood level. In wet flood proofing, flood vents are installed in the basement or foundation walls to allow floodwaters into the building. The interior flooding allows the hydrostatic forces inside and outside the foundation to equalize and eliminates the chance for structural damage. When a building is modified for wet flood proofing, vulnerable fixtures such as furnaces, water heaters and electric service panels are relocated above the design flood level. If sufficient warning time is available, the area below the design flood level can be used for storage, provided the owner plans to remove those items to higher floors before flooding is imminent.

2.5 Elevation

Elevation involves raising buildings in place so that the lowest floor is above the design flood level. Almost any structurally sound building can be raised. Buildings can be elevated on an open foundation or a closed foundation. Elevating a building on an open foundation involves raising it onto piers, post or piles (See Figure B-4). Elevating a building on a closed foundation involves raising it onto extended foundation walls (See Figure B-5) or onto compacted fill (See Figure B-6).



Figure B-4. Example of a house raised on an open foundation.



Figure B-5. Example of a house raised on a closed foundation.



Figure B-6. Example of a house raised on fill.

2.6 Berms, Levees and Floodwalls

Berms, levees or floodwalls are considered nonstructural measures when they are used to protect individual buildings. They are freestanding flood barriers that are located away from the building being protected and may completely surround the building or protect only a low side of the property. Unlike other flood proofing measures, a well-designed and constructed berm, levee or floodwall results in no damaging flood forces on the protected building and there is no need to make structural alterations to the building. An example of how these can be used to protect a structure is shown in Figure B-7.

While it is possible to design floodwalls and levees to resist large depths and flood forces, such as those associated with major flood protection projects, levees and floodwalls for individual buildings are generally of a height of 6 feet or less. This height restriction is usually necessary because of cost, limited space or esthetic concerns, or because the owner decides not to obtain the more rigorous design analysis required for greater height.

Berms and levees are typically constructed of compacted fill taken from locally available soils. Most types of soils are suitable for constructing levees. The best soils are those that have high clay content and, therefore, highly impervious. Impervious soils minimize seepage problems either through or under the levee.

Floodwalls are constructed of stronger materials than levees and take up less space. Floodwalls may be constructed of a variety of materials such as poured concrete, concrete block or brick. Timber can be used in some applications as well as steel sheet pile. For large flood depths, floodwalls must resist the hydrostatic forces that could cause the floodwall to fail by tipping over.

Where it is necessary to have openings in a levee or floodwall for access to the protected building, water-tight closures must be provided to block the openings during floods. Sufficient warning time must be available before a flood to install the closures.

A sump pump should be incorporated into the design of a protective levee or floodwall to remove precipitation from within the protected area as well as any floodwater that may seep in. Sewers or drains into the protected area should be equipped with closure valves to prevent a backup of floodwater.

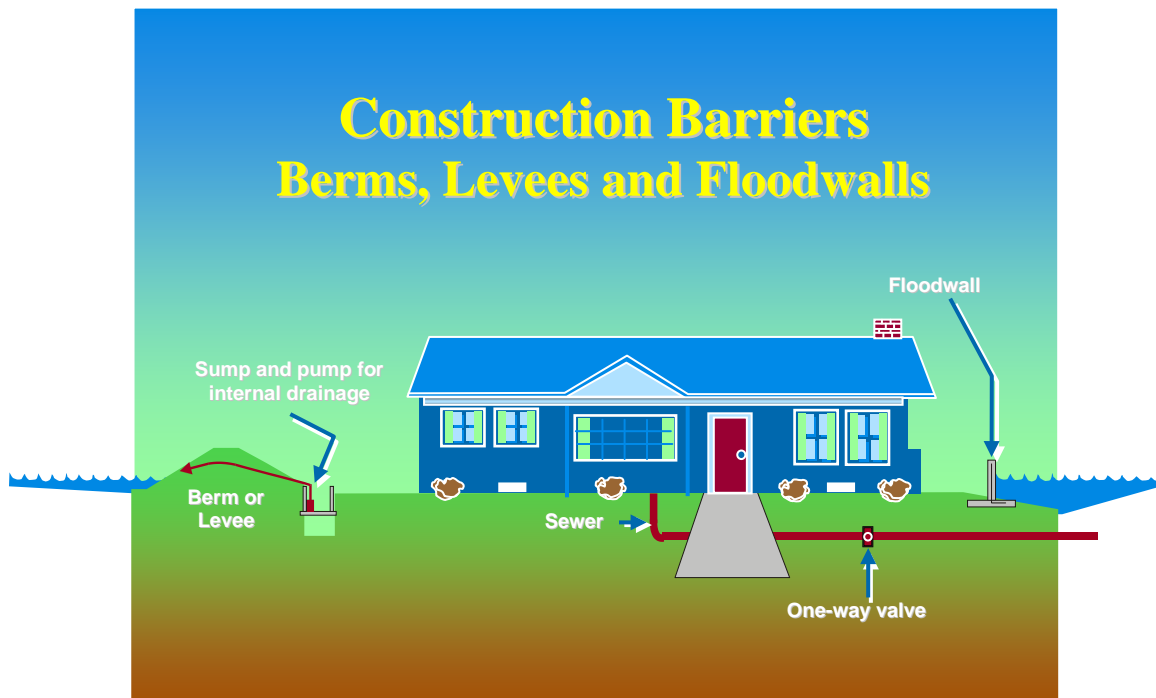


Figure B-7. Example of how berms, levees and floodwalls can be used to protect a structure

3.0 General Recommendations for Biltmore Village

The recommendations for the structures in Biltmore Village vary greatly. In many cases, you can utilize one or a combination of the methods presented above to provide protection against flooding. The goal of the Corps of Engineers was to provide in this document guidance for protection up to the 100-year flood for all structures, but due to

the great depth of 100-year flood waters in the lowest lying areas of Biltmore Village, protection of some structures to the 100-year level is not feasible. Only structures in the study area that had first floor elevations below the 100-year level were considered for permanent flood proofing. For structures already above the 100-year level, you can still implement flood proofing measures to protect up to an even higher level. Because of the diversity of structures in this study, this document could be useful in providing examples of flood proofing techniques to individuals outside Biltmore Village.

4.0 Site Maps and Structure Sheets

Please use the following site maps to locate a structure of interest in the study area; structures are denoted by a unique number. Then, refer to the sheet(s) for that structure. The sheets typically contain building photos and the following data: 1) elevation of the lowest ground surface adjacent to the building, 2) first floor elevation, 3) current flood data, including the flood water elevations for various flood event frequencies, relative to the lowest ground and the first floor (negative numbers indicate that the water is below the ground or first floor; positive numbers indicate flooding), and 4) suggested permanent flood proofing measures. Note that NAVD is the North American Vertical Datum, the vertical control datum established for vertical control surveying in the U.S.

Note that some structures are indicated on the maps but are not included in the recommendations. These include the Hill Partners mixed-use development on Brook Street (structure numbers 32-35) and the Bohemian Hotel (numbers 38 and 41), both of which are new projects which, by design, should already be protected to at least the 100-year flood elevation. Also, some structures are not identified by number on the master map but are identified on maps A1-3, B1-3 and C1-3.