Follows Conditional Case No.: 18-04-7565R

Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	Town of Mint Hill Mecklenburg County North Carolina	BRIDGE CHANNELIZATION	1D HYDRAULIC ANALYSIS UPDATED TOPOGRAPHIC DATA FLOODWAY
	COMMUNITY NO.: 370539		
IDENTIFIER	NC-21-747 Stevens Creek Restoration Project	APPROXIMATE LATITUDE & LONGITUDE: 35.143, -80.648 SOURCE: Other DATUM: NAD 83	

ANNOTATED MAPPING ENCLOSURE			ANNOTATED STUDY ENCLOSURES
TYPE: FIRM*	NO.: 3710550000L	DATE: February 19, 2014	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: November 16, 2018
TYPE: FIRM*	NO.: 3710550100K	DATE: February 19, 2014	FLOODWAY DATA TABLE: 14

Enclosures reflect changes to flooding sources affected by this revision.
* FIRM - Flood Insurance Rate Map

FLOODING SOURCE AND REVISED REACH

Stevens Creek - From a point 600 feet upstream of I-485 to just upstream of Thompson Road.

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Stevens Creek	Zone AE	Zone AE	YES	YES
	Zone X	Zone X	YES	YES
	BFEs*	BFEs*	YES	YES
	Floodway	Floodway	YES	YES
	Community Floodway	Community Floodway	YES	YES

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

ADDITIONAL FLOODING SOURCES AFFECTED BY THIS REVISION

FLOODING SOURCE AND REVISED REACH

Stevens Creek Tributary – From the confluence with Stevens Creek to 2,640 feet upstream of Thompson Road.

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Stevens Creek Tributary	Zone AE	Zone AE	YES	YES
	Zone X	Zone X	YES	YES
	BFEs*	BFEs*	YES	YES
	Floodway	Floodway	YES	YES
	Community Floodway	Community Floodway	YES	YES

* BFEs - Base Flood Elevations

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

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LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the altered or relocated watercourse, including any related appurtenances such as bridges, culverts, and other drainage structures, rests with your community. We may request that your community submit a description and schedule of maintenance activities necessary to ensure this requirement.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on flood discharges subsequent to the publication of the FIS report for your community and could, therefore, establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

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LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Ms. Jacky Bell
Director, Mitigation Division
Federal Emergency Management Agency, Region IV
Rhodes Building, 3005 Chamblee Tucker Road
Atlanta, GA 30341
(770)-220-5406

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel(s) and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

The effective FIRM shows a portion of the area revised by this LOMR to be within the Unincorporated Areas of Mecklenburg County. However, the revision area is within the Town of Mint Hill and its Extra Territorial Jurisdiction.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

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LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below, and through FEMA's Flood Hazard Mapping website at https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp

LOCAL NEWSPAPER

Name: The Mecklenburg Times

Dates: March 08, 2022 and March 15, 2022

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

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Engineering Services Branch
Federal Insurance and Mitigation Administration

Table 14 - Floodway Data

		1% Flood Discharges		Floodway			Non-Encroachment Offsets		Water Surface Elevation				
Cross Section	Distance (Feet Above Mouth)	Existing Land Use Conditions	Future Land Use Conditions	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Floodway	Community Encroachment Area	Regulatory	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
South Prong West Branch Rocky River													
179	17,907	1,919	2,015	81	202	9.5	79 / 119	79 / 121	703.2	703.2	703.2	703.3	0.1
184	18,364	1,919	2,015	112	469	4.1	54 / 58	58 / 85	706.9	706.9	706.9	707.1	0.2
South Prong West Branch Rocky River Tributary													
1	117	1,404	1,613	43	195	7.2	17 / 25	18 / 155	677.7[1]	678.3[1]	674.2	674.6	0.4
6	616	1,404	1,613	135	272	5.2	96 / 104	256 / 104	677.7[1]	678.3[1]	676.6	676.8	0.3
10	983	1,404	1,613	29	165	8.5	39 / 12	69 / 13	678.3	678.6	678.3	678.6	0.3
13	1,297	1,404	1,613	96	359	3.9	77 / 19	108 / 23	680.9	681.3	680.9	681.3	0.3
16	1,627	1,404	1,613	81	309	4.5	64 / 17	111 / 17	682.1	682.4	682.1	682.5	0.4
20	2,001	1,122	1,364	27	214	5.2	14 / 14	15 / 38	683.6	683.9	683.6	684.0	0.5
28	2,819	1,122	1,364	24	129	8.7	12 / 12	12 / 12	686.1	686.7	686.1	686.2	0.2
32	3,176	1,122	1,364	32	193	5.8	16 / 16	18 / 16	689.4	690.2	689.4	689.5	0.1
37	3,714	1,122	1,364	41	197	5.7	21 / 21	21 / 21	692.2	692.9	692.2	692.3	0.1
41	4,075	1,122	1,364	20	114	9.8	10 / 10	10 / 11	694.9	695.4	694.9	695.0	0.1
44	4,352	712	896	90	186	3.8	17 / 74	46 / 92	697.7	698.3	697.7	697.8	0.1
49	4,855	712	896	21	84	8.5	10 / 11	10 / 11	699.8	699.8	699.8	699.8	0.0
Steele Creek													
3	300	7,970	8,956	365	3,416	2.3	289 / 76	328 / 185	570.0	570.7	570.0	570.5	0.5
9	900	3,665	3,962	570	5,219	0.7	244 / 326	270 / 395	570.6	571.2	570.6	571.1	0.5
19	1,900	3,665	3,962	390	3,317	1.1	102 / 288	114 / 304	570.9	571.5	570.9	571.4	0.5
29	2,900	3,665	3,962	185	1,578	2.3	101 / 84	112 / 104	571.8	572.4	571.8	572.3	0.5
38	3,750	3,665	3,962	240	2,171	1.7	21 / 219	38 / 243	573.1	573.6	573.1	573.6	0.5
49	4,900	3,435	3,655	260	2,225	1.5	110 / 150	199 / 179	575.4	576.1	575.4	575.8	0.4
57	5,700	3,435	3,655	300	2,184	1.6	185 / 115	200 / 145	575.9	576.5	575.9	576.4	0.4
67	6,700	3,435	3,655	200	1,368	2.5	90 / 110	231 / 132	577.5	578.0	577.5	578.0	0.5
77	7,700	3,393	3,612	240	1,475	2.3	149 / 91	177 / 110	579.2	579.5	579.2	579.7	0.5
87	8,700	3,393	3,612	310	1,396	2.4	159 / 151	232 / 181	581.2	581.4	581.2	581.6	0.5
97	9,700	3,191	3,433	340	2,074	1.5	225 / 115	257 / 181	583.2	583.4	583.2	583.7	0.5
111	11,100	3,191	3,433	285	2,463	1.3	176 / 109	315 / 138	589.0	589.9	589.0	589.4	0.4
121	12,100	3,191	3,433	150	1,320	2.4	118 / 32	359 / 155	591.4	591.6	591.4	591.4	0.0
130	13,010	2,376	2,659	375	2,444	1.0	139 / 236	144 / 293	591.5	591.7	591.5	591.8	0.2
138	13,800	2,376	2,659	330	1,586	1.5	180 / 150	180 / 150	591.8	592.0	591.8	592.0	0.2
147	14,700	2,032	2,368	320	1,468	1.4	240 / 80	366 / 148	592.7	593.0	592.7	593.1	0.4
159	15,850	2,019	2,365	170	1,033	2.0	151 / 19	221 / 33	597.1	598.7	597.1	597.4	0.3
167	16,700	2,019	2,365	300	1,320	1.5	138 / 162	181 / 206	597.7	599.1	597.7	598.2	0.4
176	17,600	2,019	2,365	205	823	2.4	113 / 92	150 / 100	599.6	600.3	599.6	600.0	0.4
186	18,600	1,622	2,016	275	788	2.1	71 / 204	99 / 250	602.4	602.8	602.4	602.9	0.5
195	19,455	1,264	1,638	33	180	7.0	16 / 17	16 / 59	604.3	604.9	604.3	604.8	0.4
206	20,600	1,264	1,638	51	355	3.6	25 / 25	66 / 131	609.9	611.1	609.9	610.1	0.2
217	21,700	1,124	1,505	40	155	7.3	22 / 18	22 / 18	614.8	615.2	614.8	615.2	0.5
229	22,900	523	745	85	227	2.3	50 / 35	70 / 59	621.2	621.8	621.2	621.7	0.5
237	23,700	448	668	115	375	1.2	100 / 15	133 / 15	626.2	626.5	626.2	626.7	0.5
Stevens Creek													
5	522	2,058	2,333	85	317	6.5	60 / 25	150 / 43	626.0[1]	626.0[1]	625.1	625.5	0.4
15	1,469	2,058	2,333	118	370	5.6	94 / 22	189 / 32	629.9	630.9	629.9	630.2	0.3
20	2,054	2,058	2,333	245	934	2.2	98 / 147	133/ 165	633.8	634.0	633.8	634.3	0.5
28	2,772	2,058	2,333	241	844	2.4	110 / 131	142 / 167	636.0	636.3	636.0	636.2	0.2
38	3,753	2,058	2,333	324	1,011	2.0	309 / 15	376 / 15	638.9	639.2	638.9	639.3	0.4
45	4,501	2,058	2,333	175	731	2.8	100 / 75	137 / 128	642.4	642.8	642.4	642.8	0.4

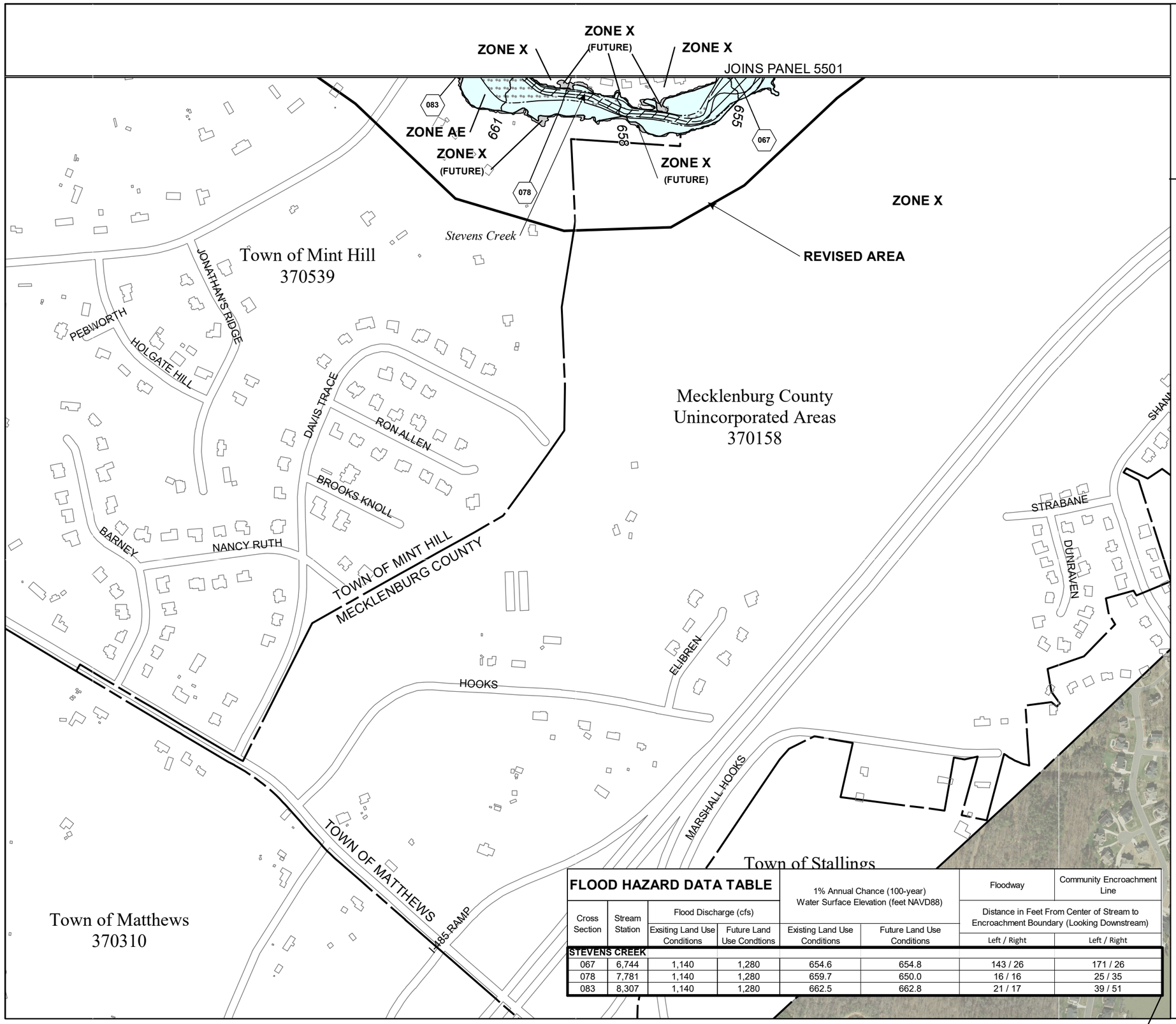
REVISED DATA

REVISED TO REFLECT LOMR EFFECTIVE: July 13, 2022

		1% Flood Discharges		Floodway			Non-Encroachment Offsets		Water Surface Elevation				
Cross Section	Distance (Feet Above Mouth)	Existing Land Use Conditions	Future Land Use Conditions	Width (Feet)	Section Area (Square Feet)	Mean Velocity (Feet Per Second)	Floodway	Community Encroachment Area	Regulatory	1% Annual Chance Future Water-Surface Elevation	Without Floodway	With Floodway	Increase
Stevens Creek													
52	5,222	1,247	1,386	48	214	5.8	24 / 24	36/ 29	645.0	645.4	645.0	645.3	0.2
60	6,012	1,247	1,386	63	247	5.1	30 / 33	67 / 38	650.4	650.7	650.4	650.7	0.3
67	6,744	1,140	1,280	169	528	2.2	143 / 26	171 / 26	654.6	654.8	654.6	655.1	0.5
78	7,781	1,140	1,280	32	188	6.1	16 / 16	25 / 35	659.7	650.0	659.7	660.1	0.4
83	8,307	1,140	1,280	38	210	5.4	21 / 17	39 / 51	662.5	662.8	662.5	663.0	0.5
90	8,986	866	988	24	139	6.2	11 / 13	17 / 38	666.1	666.6	666.1	666.7	0.5
98	9,752	600	721	21	121	5.0	11 / 11	11 / 11	670.2	670.6	670.2	670.5	0.3
105	10,485	600	721	21	98	6.1	11 / 11	11 / 11	675.9	676.4	675.9	676.0	0.0
112	11,175	600	721	21	85	7.1	11 / 11	11 / 11	680.0	680.5	680.0	680.1	0.1
Stevens Creek Tributary													
1	168	844	1,016	90	306	2.8	73 / 17	146 / 51	642.2	642.5	642.2	642.7	0.5
10	1,034	844	1,016	33	143	5.9	18 / 16	32 / 22	645.7	646.1	645.7	646.1	0.4
18	1,827	844	1,016	41	177	4.8	23 / 18	88 / 22	650.3	650.8	650.3	650.6	0.3
26	2,588	844	1,016	37	156	5.4	16 / 21	40 / 108	654.0	654.3	654.0	654.2	0.3
33	3,321	812	1,015	33	144	5.6	16 / 17	18 / 19	657.6	658.2	657.6	657.7	0.1
39	3,924	812	1,015	29	106	7.6	15 / 14	20 / 19	661.5	662.1	661.5	661.5	0.0
Stewart Creek													
7	700	6,184	6,396	299	1,667	3.7	197 / 102	299 / 149	642.0[1]	644.0[1]	632.2	632.6	0.5
18	1,800	6,184	6,396	84	845	7.3	33 / 50	115 / 61	642.0[1]	644.0[1]	635.3	635.8	0.5
27	2,720	5,802	6,040	110	1,001	5.8	80 / 30	123 / 38	642.0[1]	644.0[1]	638.2	638.6	0.4
37	3,665	5,802	6,040	78	958	6.1	42 / 36	112 / 49	642.0[1]	644.0[1]	641.3	641.6	0.2
47	4,681	5,802	6,040	230	1,752	3.3	239 / 29	289 / 35	642.5	644.0[1]	642.5	642.9	0.4
57	5,700	5,802	6,040	245	2,499	2.3	84 / 161	198 / 208	645.3	645.6	645.3	645.8	0.5
68	6,800	5,802	6,040	175	2,203	2.6	39 / 136	55 / 140	650.7	651.1	650.7	651.2	0.5
78	7,785	5,802	6,040	200	1,761	3.3	101 / 99	126 / 106	651.1	651.4	651.1	651.6	0.5
86	8,626	5,802	6,040	186	1,651	3.5	90 / 97	103 / 115	651.5	651.9	651.5	652.0	0.5
93	9,250	5,028	5,565	109	951	5.3	68 / 41	103 / 67	652.8	653.0	652.8	653.2	0.4
97	9,700	5,028	5,565	215	1,658	3.0	115 / 100	115 / 115	656.6	658.3	656.6	656.6	0.0
106	10,600	5,028	5,565	182	1,066	4.7	99 / 83	134 / 134	657.1	658.6	657.1	657.3	0.2
115	11,500	5,028	5,565	106	904	5.6	78 / 28	93 / 28	662.4	663.0	662.4	663.0	0.5
132	13,225	5,028	5,565	425	4,072	1.2	299 / 126	479 / 173	671.7	673.4	671.7	672.0	0.3
143	14,300	5,028	5,565	336	2,979	1.7	37 / 299	66 / 454	676.4	677.1	676.4	676.6	0.2
151	15,100	4,929	5,488	280	2,993	1.6	61 / 219	79 / 238	676.9	677.5	676.9	677.3	0.4
159	15,850	4,929	5,488	448	3,720	1.3	161 / 287	205 / 305	677.1	677.7	677.1	677.5	0.4
168	16,800	4,929	5,488	221	1,251	3.9	97 / 124	147 / 248	677.7	678.3	677.7	678.2	0.5
175	17,500	3,643	4,155	155	1,196	3.0	131 / 24	263 / 51	678.7	679.2	678.7	679.1	0.4
184	18,350	3,643	4,155	212	1,305	2.8	189 / 24	255 / 47	680.0	680.6	680.0	680.5	0.5
193	19,300	3,643	4,155	73	927	3.9	40 / 32	50 / 40	688.6	689.1	688.6	689.0	0.5
204	20,400	3,643	4,155	117	1,109	3.3	85 / 32	95 / 57	690.6	691.3	690.6	691.1	0.5
214	21,400	3,615	4,118	127	918	3.9	77 / 50	92 / 79	692.1	692.7	692.1	692.5	0.5
223	22,300	3,615	4,118	135	893	4.0	35 / 100	43 / 119	696.8	697.5	696.8	697.2	0.4
236	23,600	3,615	4,118	166	1,335	2.7	31 / 135	43 / 151	703.1	703.7	703.1	703.5	0.4
248	24,800	2,038	2,401	40	274	7.4	19 / 21	24 / 42	708.6	709.4	708.6	708.7	0.1
258	25,750	2,038	2,401	102	560	3.6	82 / 19	113 / 19	712.6	713.2	712.6	713.2	0.5
268	26,750	2,038	2,401	57	396	5.2	34 / 23	44 / 33	718.4	719.0	718.4	718.7	0.3
280	28,000	2,038	2,401	184	1,386	1.5	165 / 19	179 / 32	728.7	729.3	728.7	729.3	0.5
Stewart Creek Tributary 1													
10	1,000	2,774	2,907	24	224	12.4	12 / 12	19 / 16	642.0[1]	644.0[1]	641.5	641.9	0.5

REVISED DATA

REVISED TO REFLECT LOMR EFFECTIVE:July 13, 2022



FLOOD HAZARD DATA TABLE				1% Annual Chance (100-year) Water Surface Elevation (feet NAVD88)		Floodway	Community Encroachment Line
Cross Section	Stream Station	Flood Discharge (cfs)				Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream)	
		Exsiting Land Use Conditions	Future Land Use Condtions	Existing Land Use Conditions	Future Land Use Conditions	Left / Right	Left / Right
STEVENS CREEK							
067	6,744	1,140	1,280	654.6	654.8	143 / 26	171 / 26
078	7,781	1,140	1,280	659.7	650.0	16 / 16	25 / 35
083	8,307	1,140	1,280	662.5	662.8	21 / 17	39 / 51

REVISED DATA

Legend

- AE
- AE, FLOODWAY
- COMMUNITY ENCROACHMENT AREA
- 1 PCT FUTURE CONDITIONS

GRID NORTH

MAP SCALE 1" = 500' (1 : 6,000)

500 0 500 FEET

150 0 150 METERS

NFIP

PANEL 5500L

FIRM

FLOOD INSURANCE RATE MAP

NORTH CAROLINA

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 5500

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
HEMBY BRIDGE, TOWN OF	370683	5500	L
INDIAN TRAIL, TOWN OF	370235	5500	L
MATTHEWS, TOWN OF	370310	5500	L
MECKLENBURG COUNTY	370158	5500	L
MINT HILL, TOWN OF	370539	5500	L
STALLINGS, TOWN OF	370472	5500	L
UNION COUNTY	370234	5500	L

REVISED TO REFLECT LOMR EFFECTIVE: July 13, 2022

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

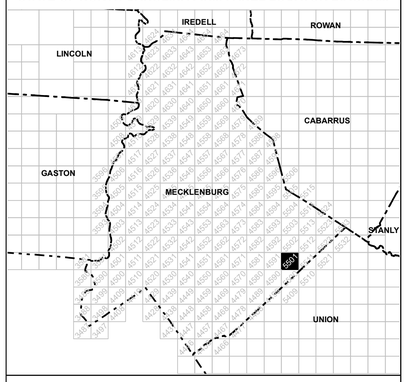
MAP REVISED **MAP NUMBER**

FEBRUARY 19, 2014 **3710550000L**

Charlotte-Mecklenburg STORM WATER Services

State of North Carolina
Federal Emergency Management Agency

STATE OF NORTH CAROLINA FIRM PANEL LOCATOR DIAGRAM



DATUM INFORMATION

The **projection** used in the preparation of this map was the North Carolina State Plane (FIPSZONE 3200). The **horizontal datum** was the North American Datum of 1983, GRS80 ellipsoid. Differences in datum, ellipsoid, projection, or Universal Transverse Mercator zones used in the production of FIRMS for adjacent jurisdictions may result in slight positional differences in map features across jurisdictional boundaries. These differences do not affect the accuracy of this FIRM. All coordinates on this map are in U.S. Survey Feet, where
1 U.S. Survey Foot = 1200/3937 Meters.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988 (NAVD 88). These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. An average offset between NAVD 88 and the National Geodetic Vertical Datum of 1929 (NGVD 29) has been computed for each North Carolina county. This offset was then applied to the NGVD 29 flood elevations that were not revised during the creation of this statewide format FIRM. The offsets for each county shown on this FIRM panel are shown in the vertical datum offset table below. Where a county boundary and a flooding source with unrevised NGVD 29 flood elevations are coincident, an individual offset has been calculated and applied during the creation of this statewide format FIRM. See Section 6.1 of the accompanying Flood Insurance Study report to obtain further information on the conversion of elevations between NAVD 88 and NGVD 29. To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the North Carolina Geodetic Survey at the address shown below. You may also contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

North Carolina Geodetic Survey
121 West Jones Street
Raleigh, NC 27601
(919) 733-3836
http://www.ncgs.state.nc.us

County Average Vertical Datum Offset Table

County	Vertical Datum Offset (ft)
MECKLENBURG	-0.74

Example: NAVD 88 = NGVD 29 + (-0.74)

All streams listed in the **Flood Hazard Data Table** below were studied by detailed methods using field survey. Other flood hazard data shown on this map may have been derived using either a coastal analysis or limited detailed Riverine analysis. More information on the flooding sources studied by these analyses is contained in the Flood Insurance Study report.

FLOOD HAZARD DATA TABLE

Cross Section	Stream Station	Flood Discharge (cfs) Existing Land Use Conditions	Flood Discharge (cfs) Future Land Use Conditions	1% Annual Chance (100-year) Water Surface Elevation (feet NAVD88) Existing Land Use Conditions	1% Annual Chance (100-year) Water Surface Elevation (feet NAVD88) Future Land Use Conditions	Floodway: Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream) Left / Right	Community Encroachment Line: Distance in Feet From Center of Stream to Encroachment Boundary (Looking Downstream) Left / Right
STEVENS CREEK							
005	522	2,058	2,333	626.0[1]	626.0[1]	60 / 25	150 / 43
015	1,469	2,058	2,333	629.9	630.9	94 / 22	189 / 32
020	2,054	2,058	2,333	633.8	634.0	98 / 147	153 / 165
028	2,772	2,058	2,333	636.0	636.3	110 / 131	142 / 167
038	3,753	2,058	2,333	638.9	639.2	309 / 15	376 / 15
045	4,501	2,058	2,333	642.4	642.8	100 / 75	137 / 128
052	5,222	1,247	1,386	645.0	645.4	24 / 24	36 / 29
060	6,012	1,247	1,386	650.4	650.7	30 / 33	67 / 38
067	6,744	1,140	1,280	654.5	654.8	143 / 26	171 / 26
078	7,781	1,140	1,280	659.7	650.0	16 / 16	25 / 35
083	8,307	1,140	1,280	662.5	662.8	21 / 17	39 / 51
090	8,986	866	988	666.1	666.6	11 / 13	17 / 38
098	9,752	600	721	670.2	670.6	11 / 11	11 / 11
105	10,485	600	721	675.9	676.4	11 / 11	11 / 11
112	11,175	600	721	680.0	680.5	11 / 11	11 / 11
STEVENS CREEK TRIBUTARY							
001	168	844	1,016	642.2	642.5	73 / 17	146 / 51
010	1,034	844	1,016	645.7	646.1	18 / 16	32 / 22
018	1,827	844	1,016	650.3	650.8	23 / 18	88 / 22
026	2,588	844	1,016	654.0	654.3	16 / 21	40 / 108
033	3,321	812	1,015	657.6	658.2	16 / 17	18 / 19
039	3,924	812	1,015	661.5	662.1	15 / 14	20 / 19

[1] Feet above County line, [2] Feet above confluence with Stevens Creek

REVISED DATA

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevation determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99 Areas to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

COMMUNITY ENCROACHMENT AREAS (Mecklenburg County)

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER FLOOD AREAS (Mecklenburg County)

ZONE X Areas of future conditions 1% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513 Base Flood Elevation line and value; elevation in feet*
(EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*
* Referenced to the North American Vertical Datum of 1988
Cross section line
Transect line
97°07'30", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
4275000 M 1000-meter Universal Transverse Mercator grid ticks, zone 17
1 477 500 FEET 2500-foot grid values: North Carolina State Plane coordinate system (FIPSZONE 3200, State Plane NAD 83 feet)
BM5510 North Carolina Geodetic Survey bench mark (for more information visit http://www.ncgs.state.nc.us)
BM5510 National Geodetic Survey bench mark (for more information visit http://www.ngs.noaa.gov)
BM5510 NGS-58 GPS 2-5 cm Vertical Control Marks or Contractor-Established NCFMP Bench Marks (for more information visit http://www.ncgs.state.nc.us)
M1.5 River Mile

GRID NORTH
MAP SCALE 1" = 500' (1 : 6,000)
250 0 250 500 750 1,000 FEET
150 0 150 300 METERS

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles, Floodway Data, Limited Detailed Flood Hazard Data, and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of **regulatory floodways** shown on the FIRM for flooding sources studied by detailed methods were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data for flooding sources studied by detailed methods as well as **non-encroachment widths** for flooding sources studied by limited detailed methods are provided in the Flood Insurance Study (FIS) report for this jurisdiction. The FIS report also provides instructions for determining a floodway using non-encroachment widths for flooding sources studied by limited detailed methods.

FEMA recommends that a Flood Insurance Policy be purchased for structures in areas where levees are shown as providing protection from the 1% annual chance flood. Flooding is not covered by standard property/fire/dwelling insurance policies nor is it covered by Homeowners Insurance, Renters Insurance, Condominium Owners Insurance, or Commercial Property Insurance. Contact your insurance agent and local floodplain administrator for further information. Visit http://www.fema.gov/pdf/fhm/frm_gsah.pdf for information on levees and the risk of flooding in areas shown as being protected by levees.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 4.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

Base map information and geospatial data used to develop this FIRM were obtained from various organizations, including the participating local community(ies), state and federal agencies, and/or other sources. The primary base for this FIRM is planimetric base map information obtained from Mecklenburg County Storm Water Services and the Mecklenburg County GIS Department. The time period of collection for the planimetric base map information ranges from 2004 for building footprints through 2007 for the street centerline and Jurisdictional Boundary. Building footprints were digitized from 2004 aerial photography at a scale of 1:1,200 within North Carolina accuracy standards. Building footprints were produced by Avio Image of Charlotte, North Carolina. Information and geospatial data supplied by the local community(ies) that met FEMA base map specifications were considered the preferred source for development of the base map. See geospatial metadata for the associated digital FIRM for additional information about base map preparation.

Base map features shown on this map, such as **corporate limits**, are based on the most up-to-date data available at the time of publication. **Changes in the corporate limits may have occurred since this map was published**. Map users should consult the appropriate community official or website to verify current conditions of jurisdictional boundaries and base map features. This map may contain roads that were not considered in the hydraulic analysis of streams where no new hydraulic model was created during the production of this statewide format FIRM.
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

If you have **questions about this map**, or questions concerning the National Flood Insurance Program in general, please call **1 – 877 – FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the **North Carolina Floodplain Mapping Program** website at http://www.ncfloodmaps.com, or contact the **FEMA Map Service Center** at 1-800-358-9616 for information on all related products associated with this FIRM. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov.

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index or visit http://www.ncfloodmaps.com.

EFFECTIVE DATE OF FLOOD INSURANCE RATE MAP PANEL

MARCH 2, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

FEBRUARY 19, 2014

For community map revision history prior to statewide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent, the North Carolina Division of Emergency Management or the National Flood Insurance Program at the following phone numbers or websites:

NC Division of Emergency Management (919) 715-8000 http://www.nccrimecontrol.org/nfip
National Flood Insurance Program 1-800-638-6620 http://www.fema.gov/business/nfip/

Charlotte-Mecklenburg STORM WATER Services
NORTH CAROLINA Cooperating Technical State
FEMA'S COOPERATING TECHNICAL PARTNER

This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach of floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the state of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

www.ncfloodmaps.com
http://stormwater.charmeck.org

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 5501K

FIRM

FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 5501
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
MECKLENBURG COUNTY	370158	5501	K
MINT HILL, TOWN OF	370539	5501	K
STALLINGS, TOWN OF	370472	5501	K
UNION COUNTY	370234	5501	K

REVISED TO REFLECT LOMR EFFECTIVE: July 13, 2022

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP REVISED
FEBRUARY 19, 2014

MAP NUMBER
3710550100K

Charlotte-Mecklenburg STORM WATER Services

State of North Carolina
Federal Emergency Management Agency