









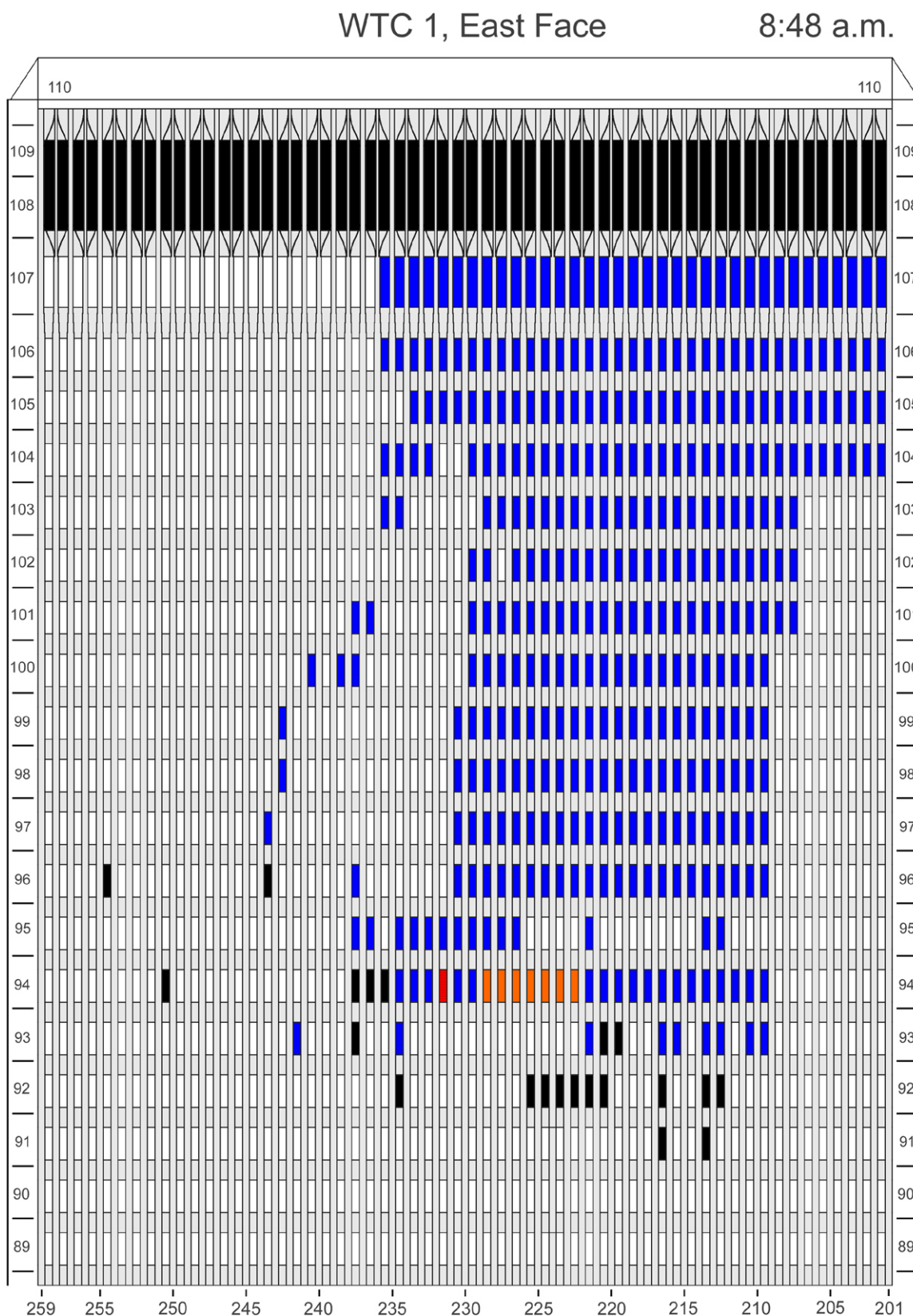


## Appendix D

### WTC 1 EAST FACE COMBINED FIRE AND WINDOW CONDITION AND WINDOW SMOKE CONDITION

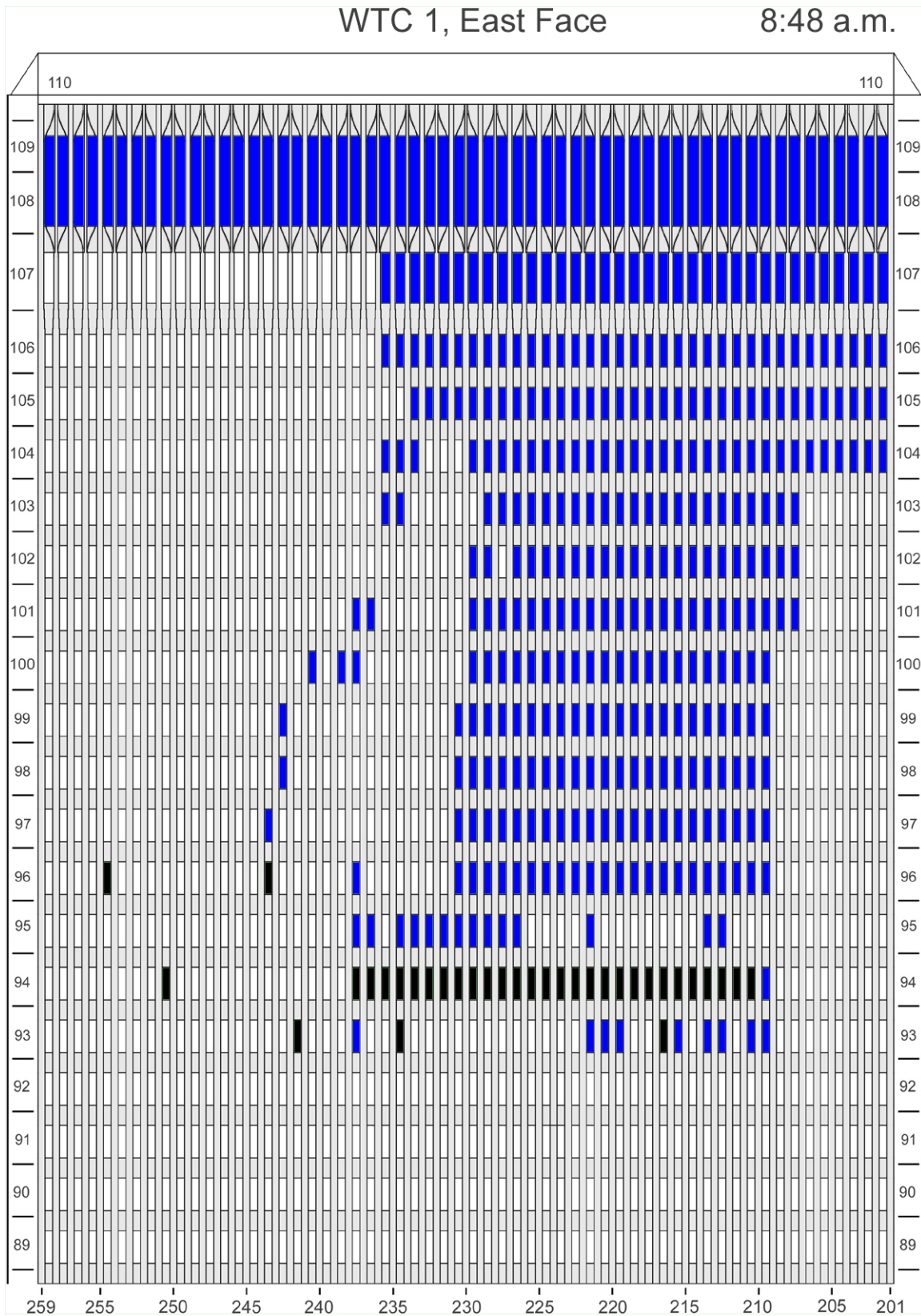
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This appendix provides visual representations of the data contained in data sheets describing observations of fire, smoke, and window condition on a window-by-window basis as a function of time for the east face of WTC 1. The data for window condition and fire observations are combined into single representations, with the data for fire taking precedence. Observations are represented using the key provided in Figure 5-1 as follows:  - window glass in place,  - window open,  - spot fire,  - fire visible inside,  - external flaming, and  - not visible. The data for smoke are shown in separate figures using the key from Figure 5-1 as follows:  - no smoke visible,  - light smoke,  - heavy smoke, and  - not visible. For a given time, the window condition and fire data are shown first.

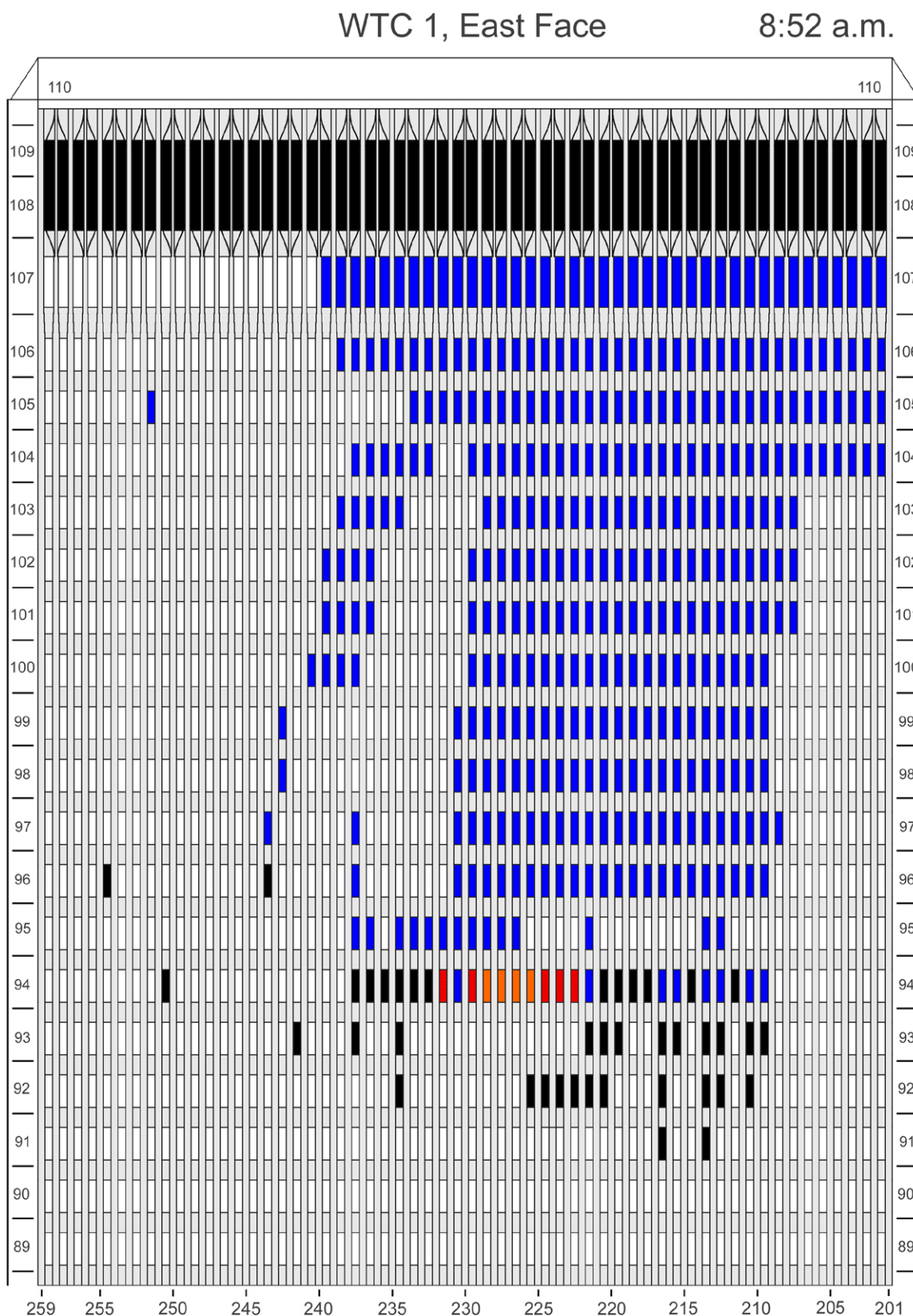


**Figure D-1. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:48 a.m. showing the condition of windows and locations of fires.**

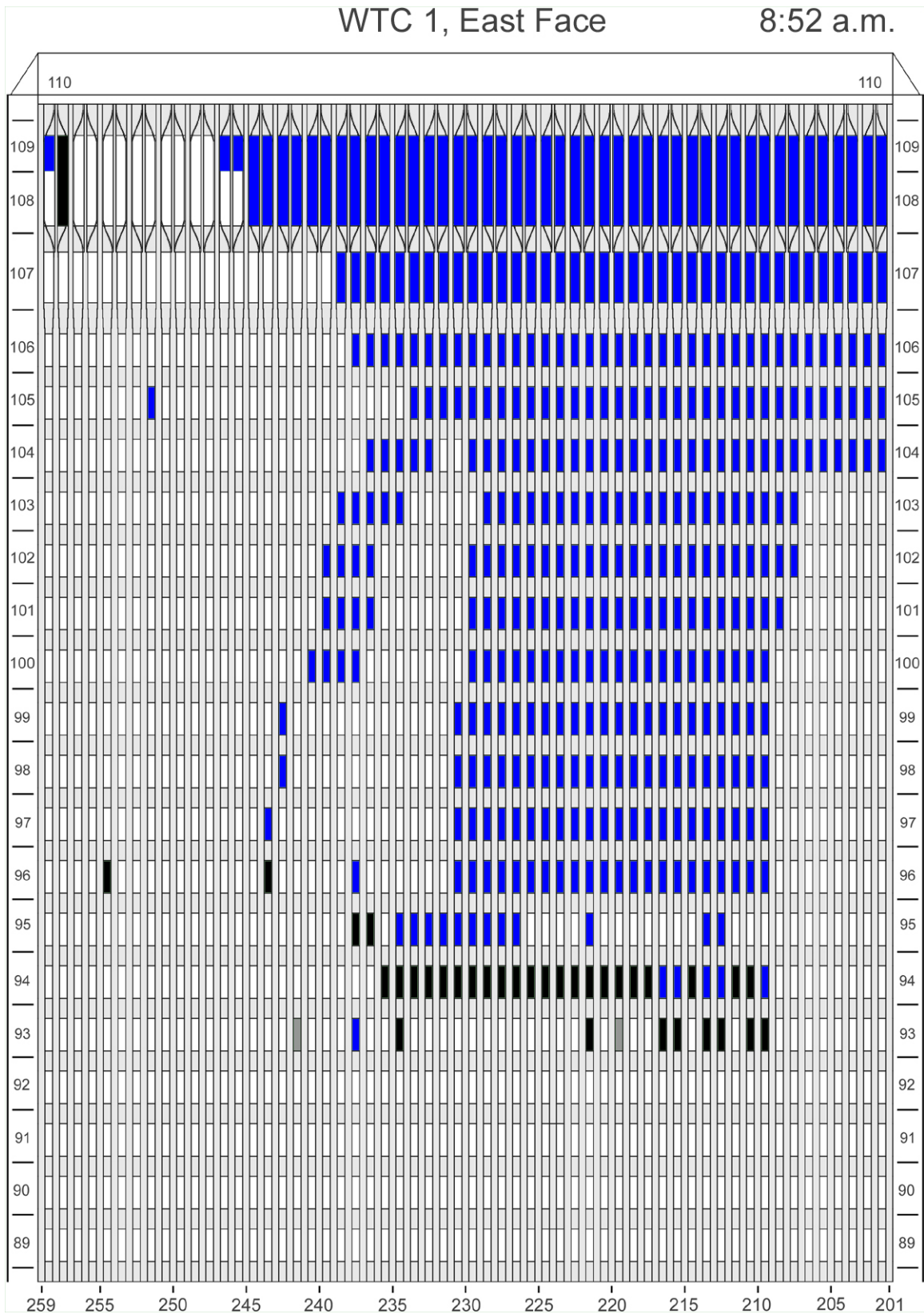




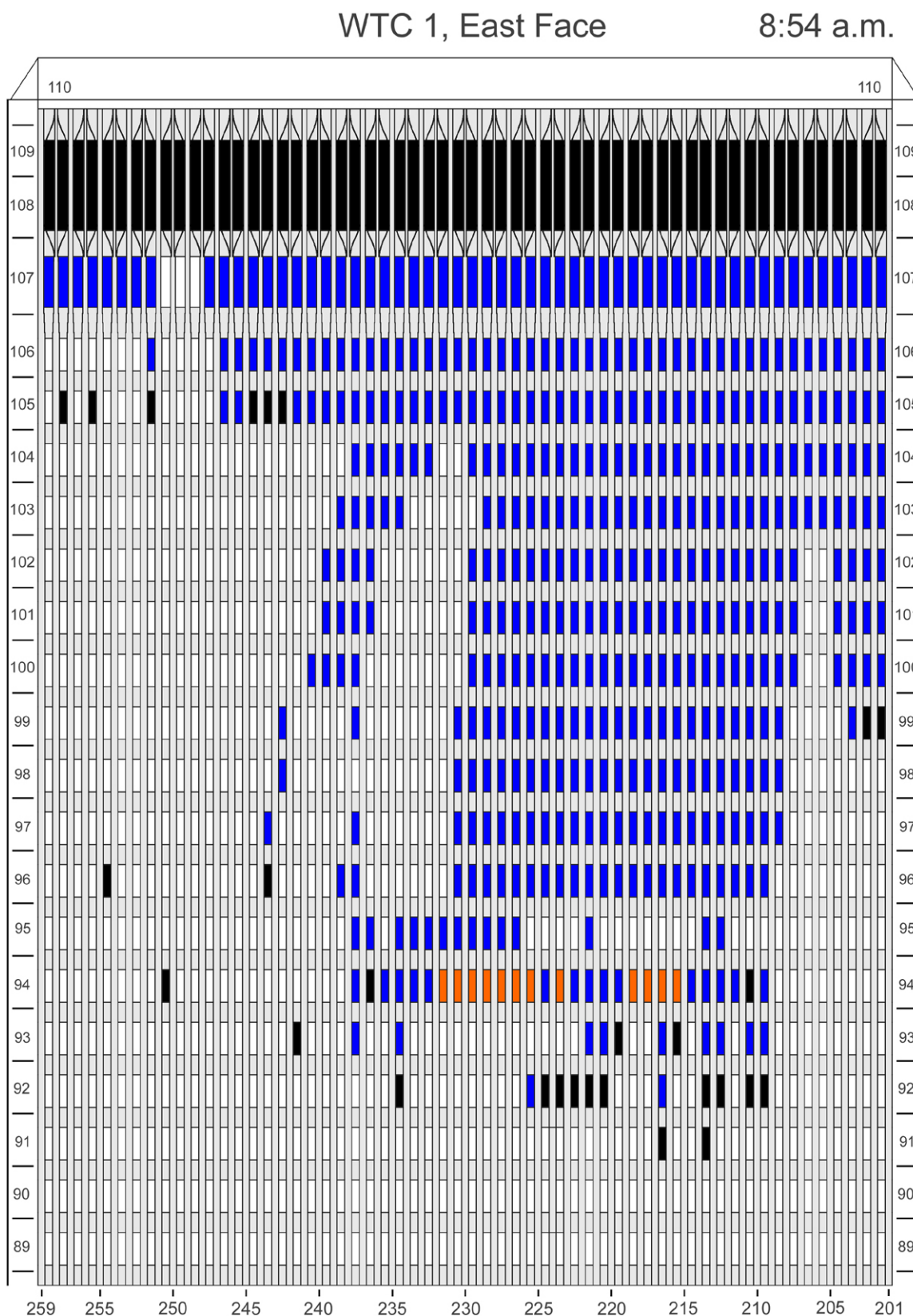
**Figure D-2. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:48 a.m. showing windows where smoke was observed and those that were hidden from view.**



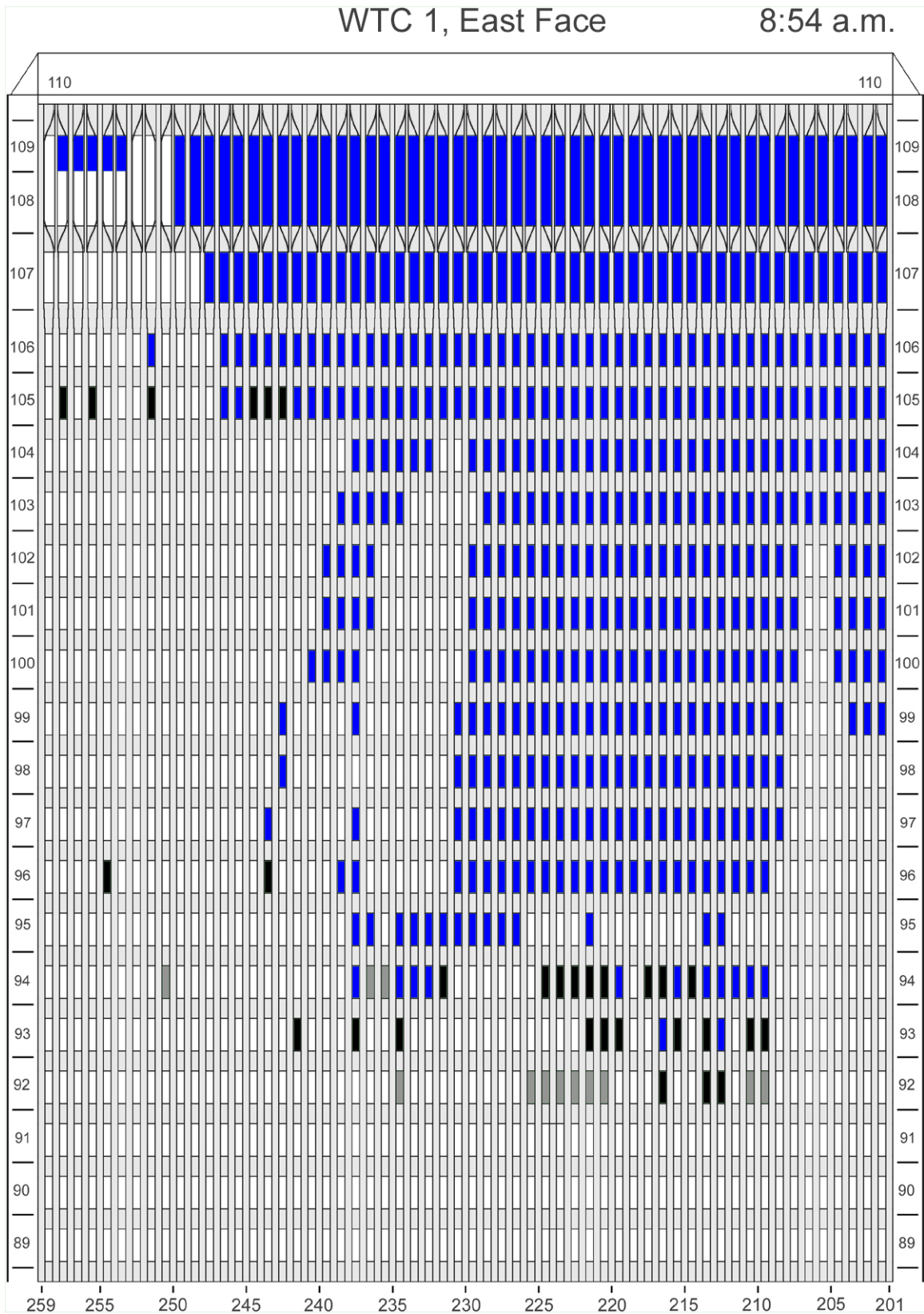
**Figure D-3. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:52 a.m. showing the condition of windows and locations of fires.**



**Figure D-4. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:52 a.m. showing windows where smoke was observed and those that were hidden from view.**

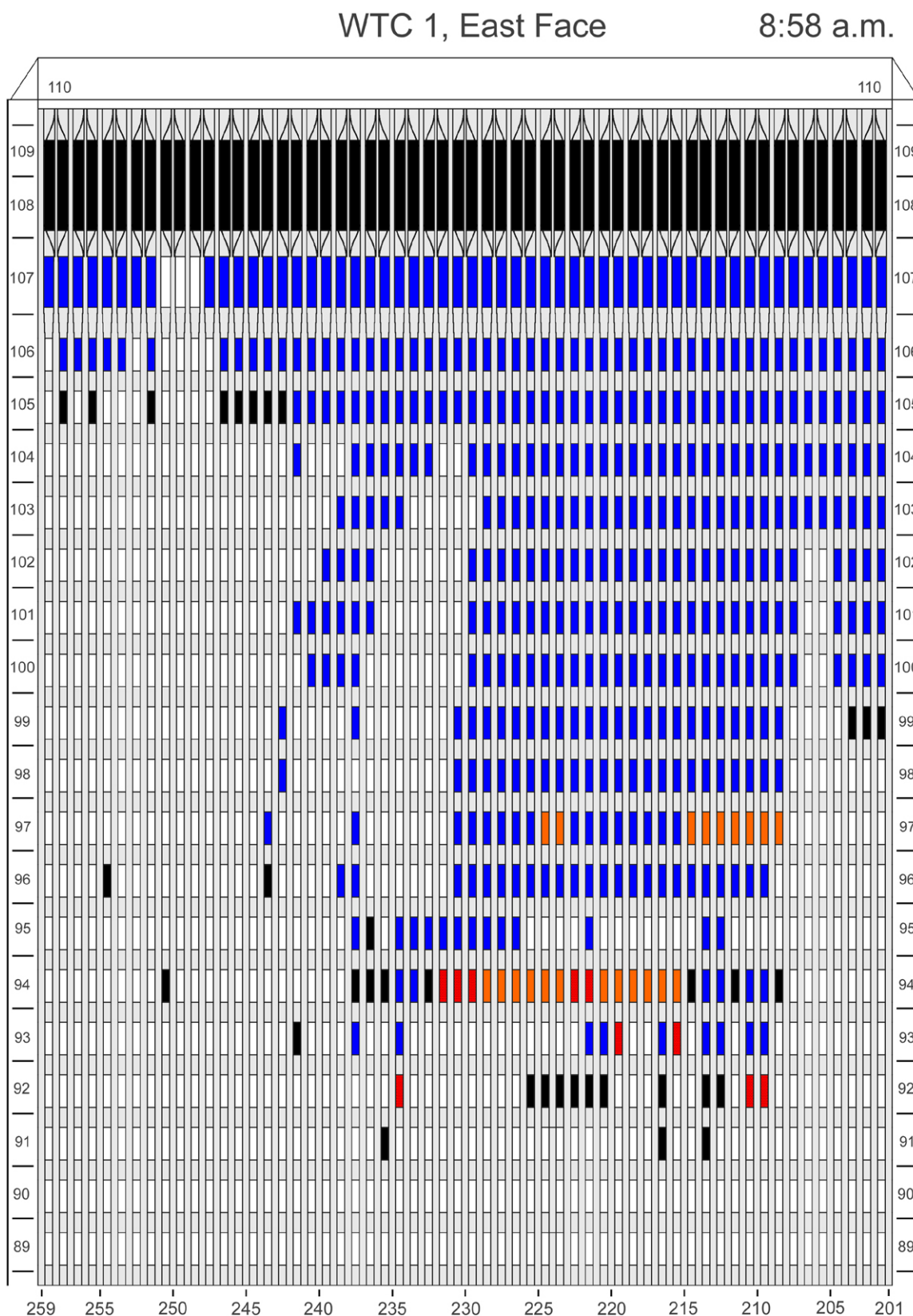


**Figure D-5. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:54 a.m. showing the condition of windows and locations of fires.**

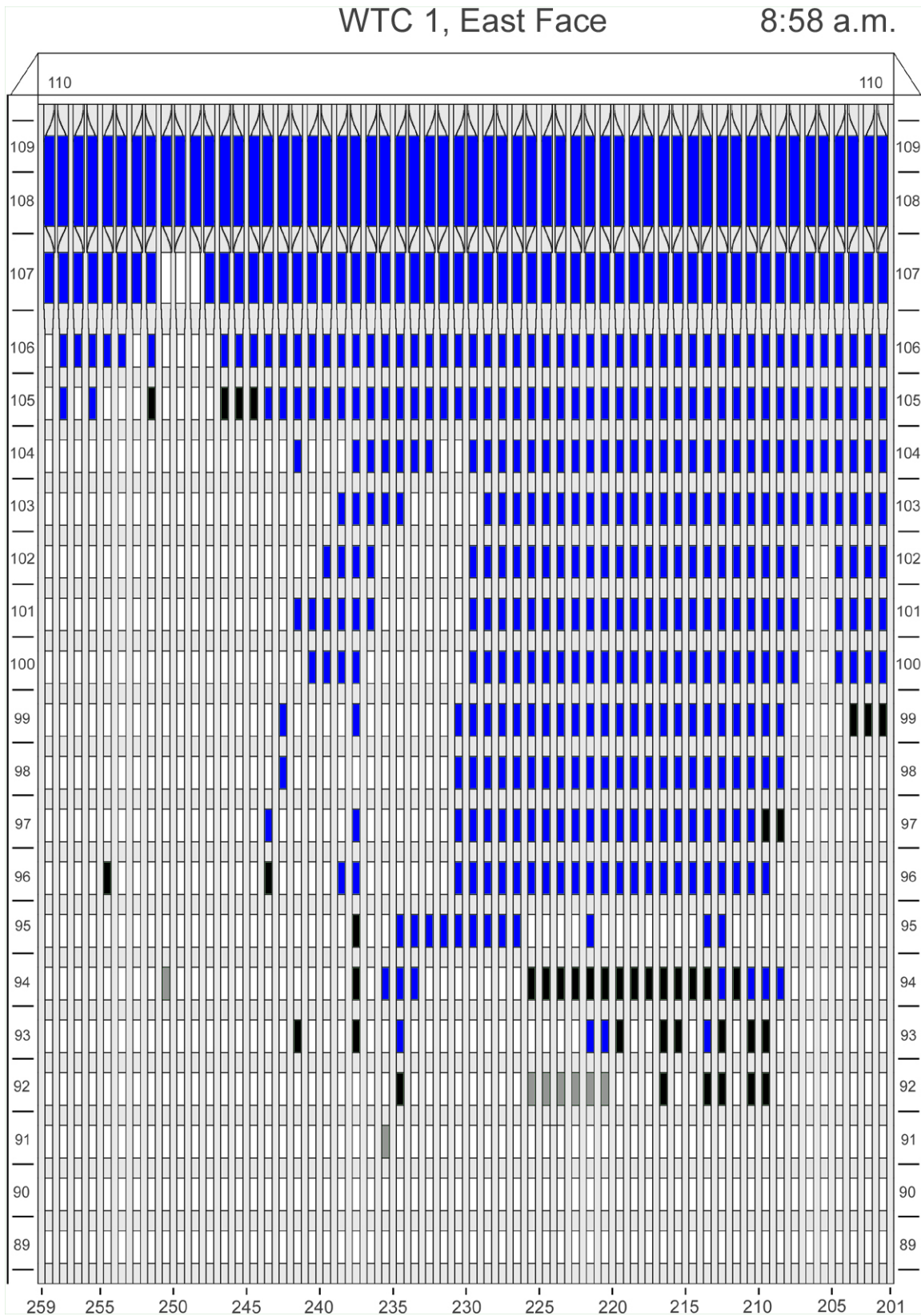


**Figure D-6. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:54 a.m. showing windows where smoke was observed and those that were hidden from view.**

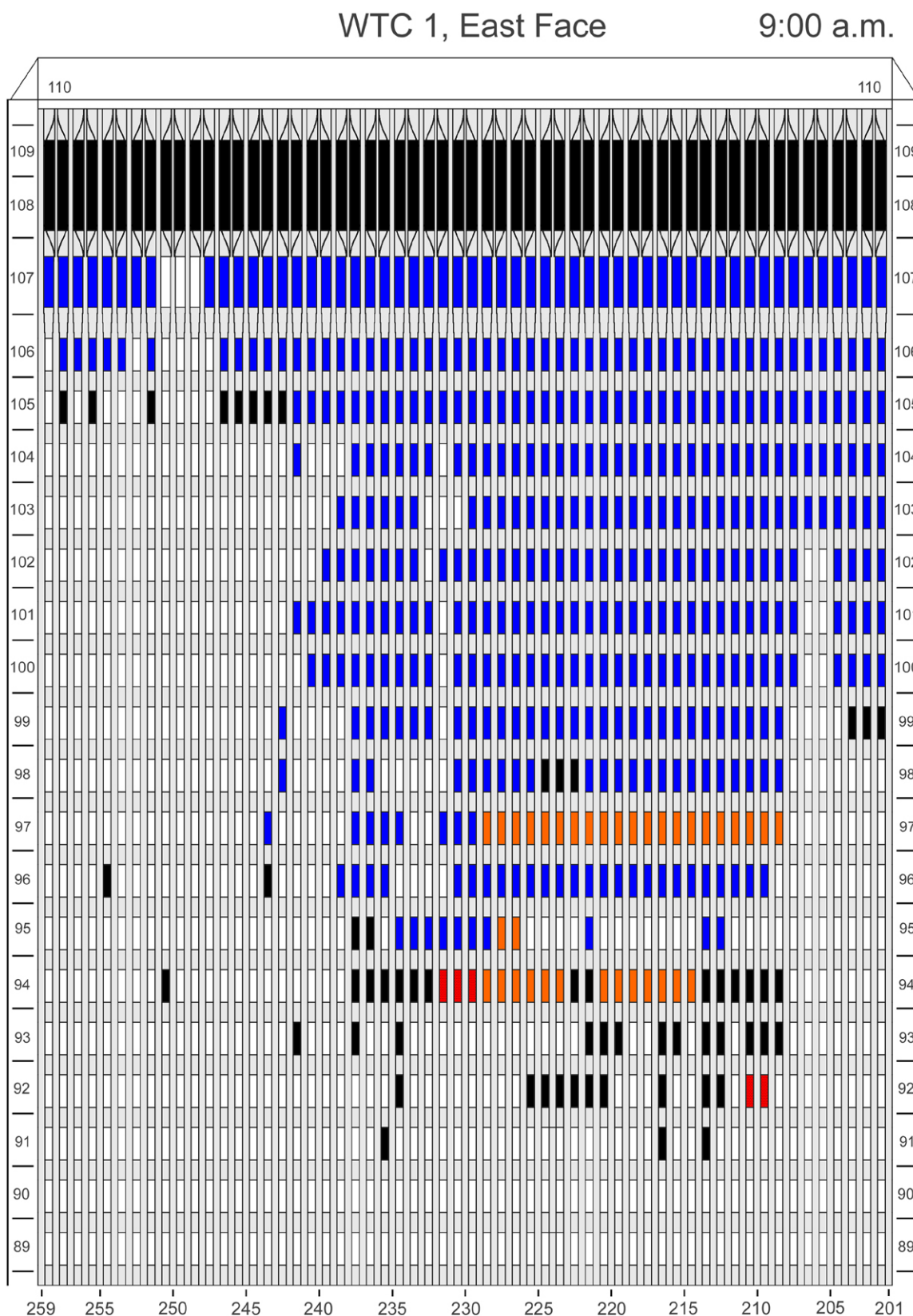




**Figure D-7. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:58 a.m. showing the condition of windows and locations of fires.**

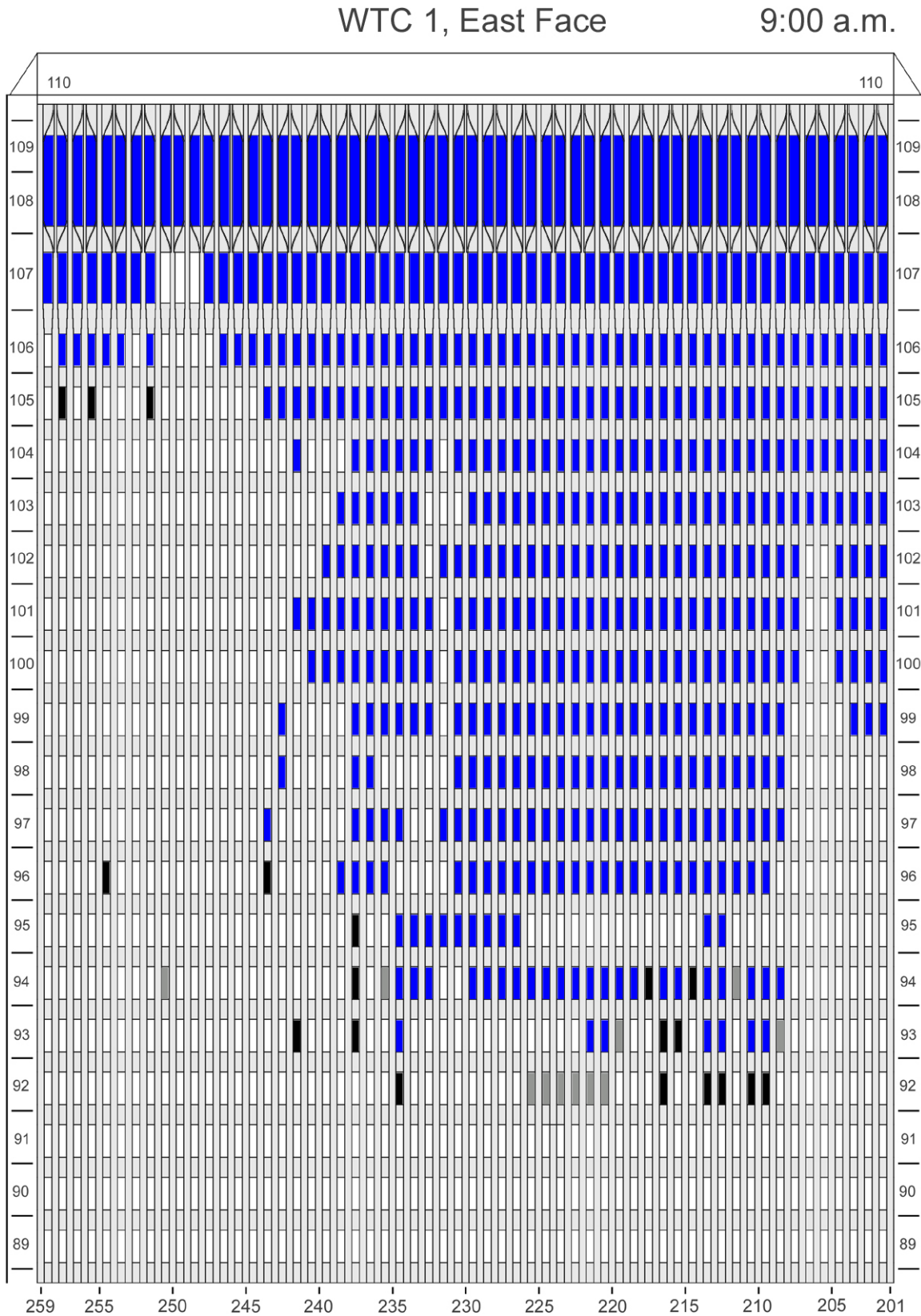


**Figure D-8. Diagram of the east face of WTC 1 for floors 89 to 110 at 8:58 a.m. showing windows where smoke was observed and those that were hidden from view.**

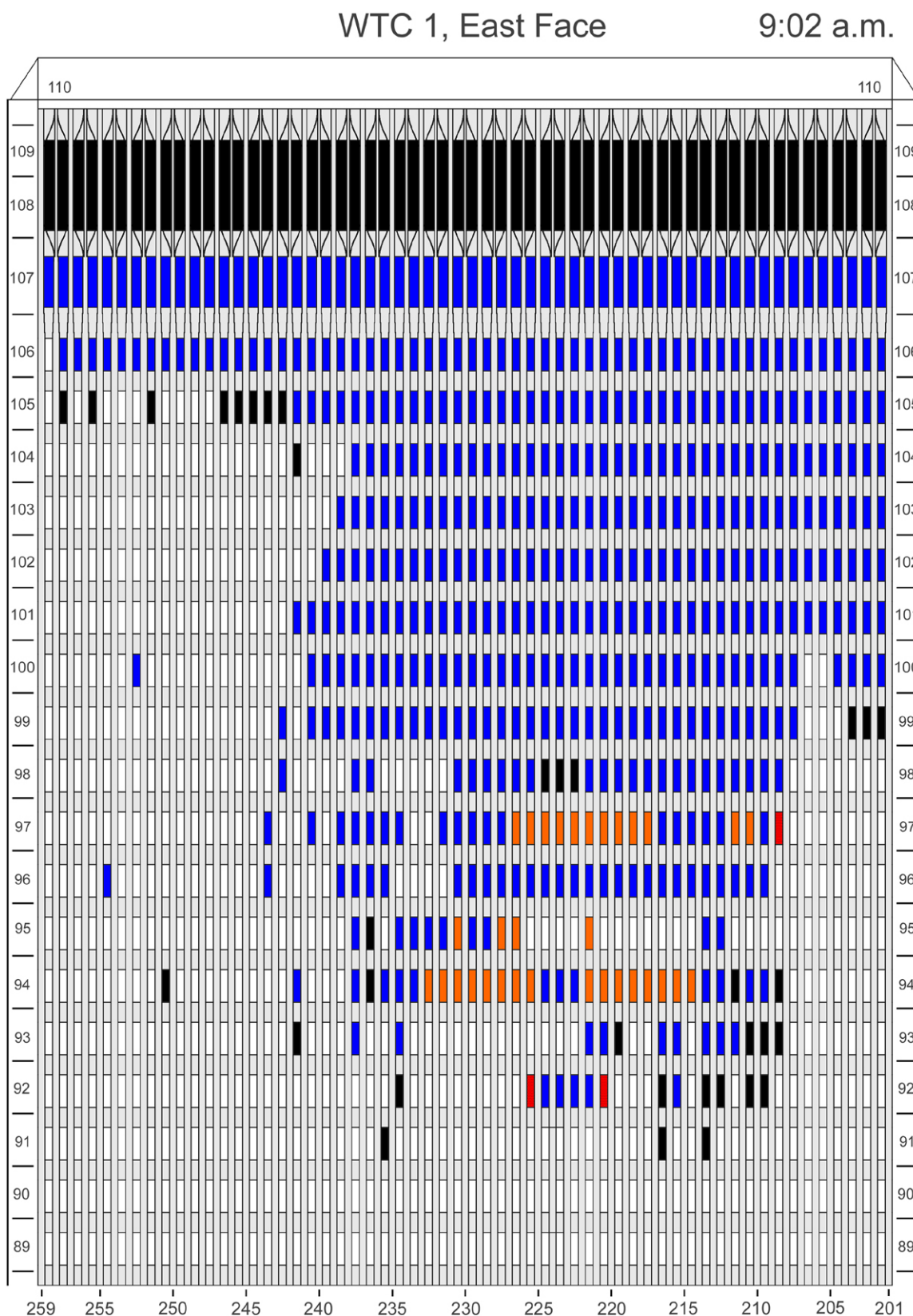


**Figure D-9. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:00 a.m. showing the condition of windows and locations of fires.**

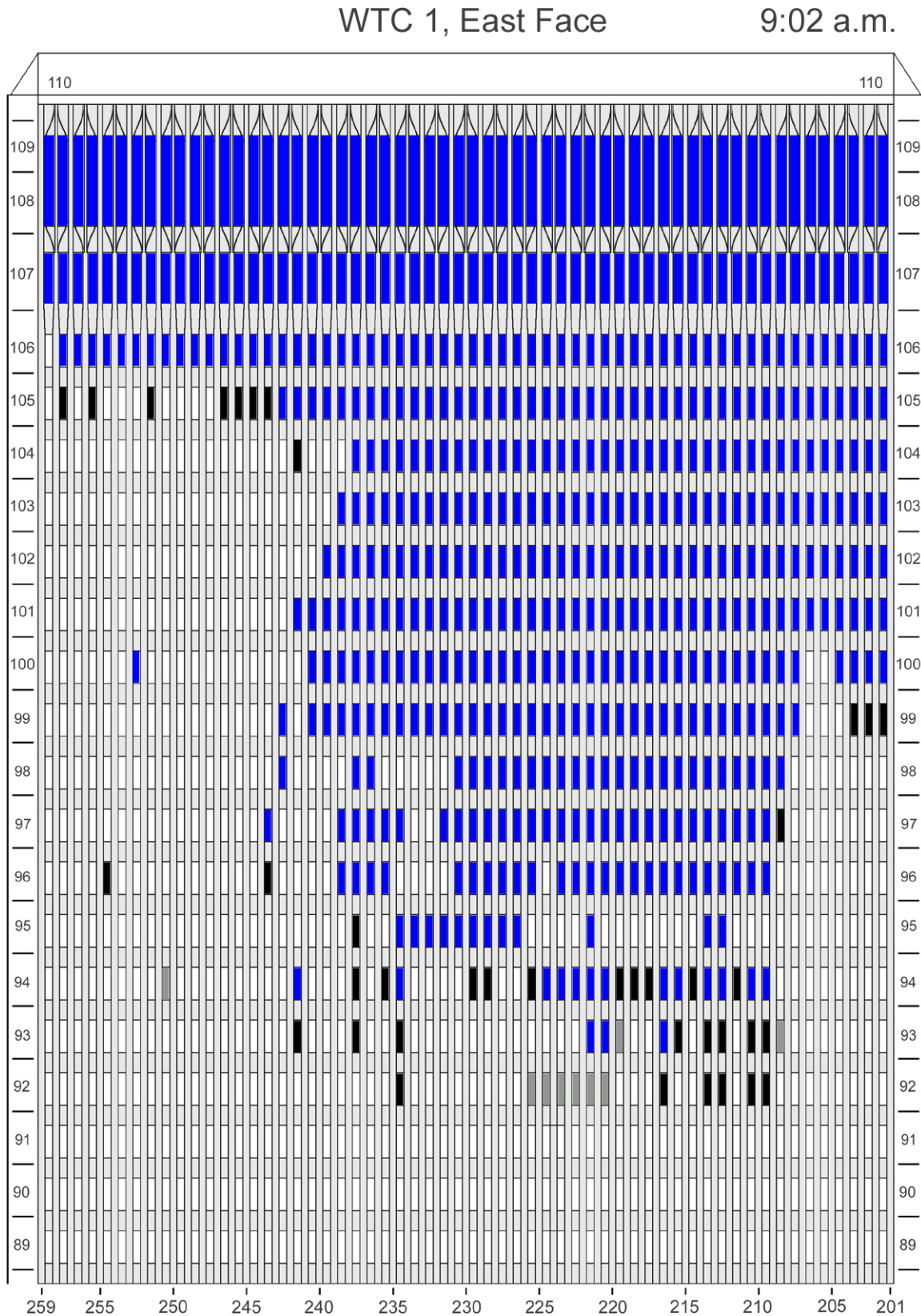




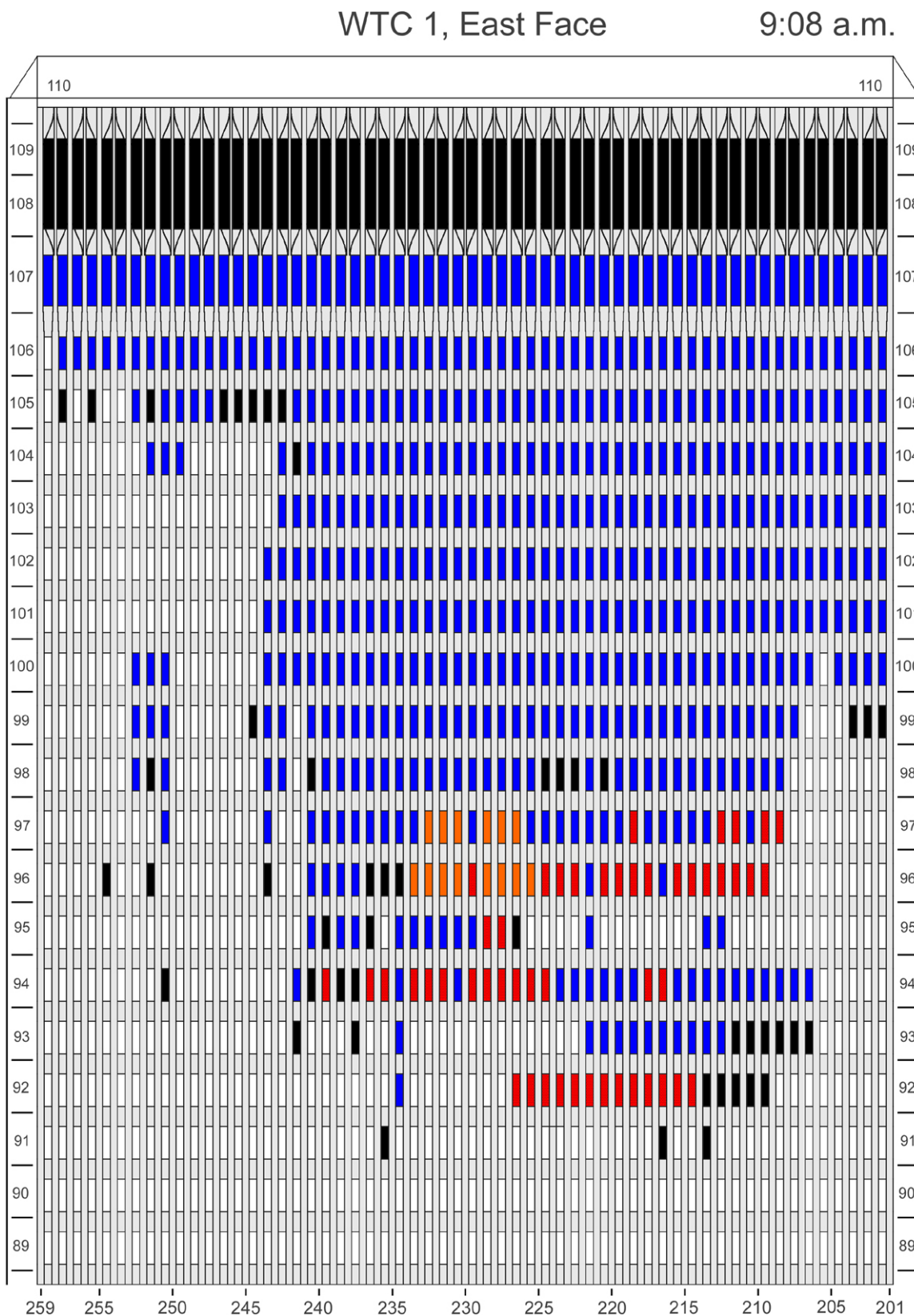
**Figure D-10. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:00 a.m. showing windows where smoke was observed and those that were hidden from view.**



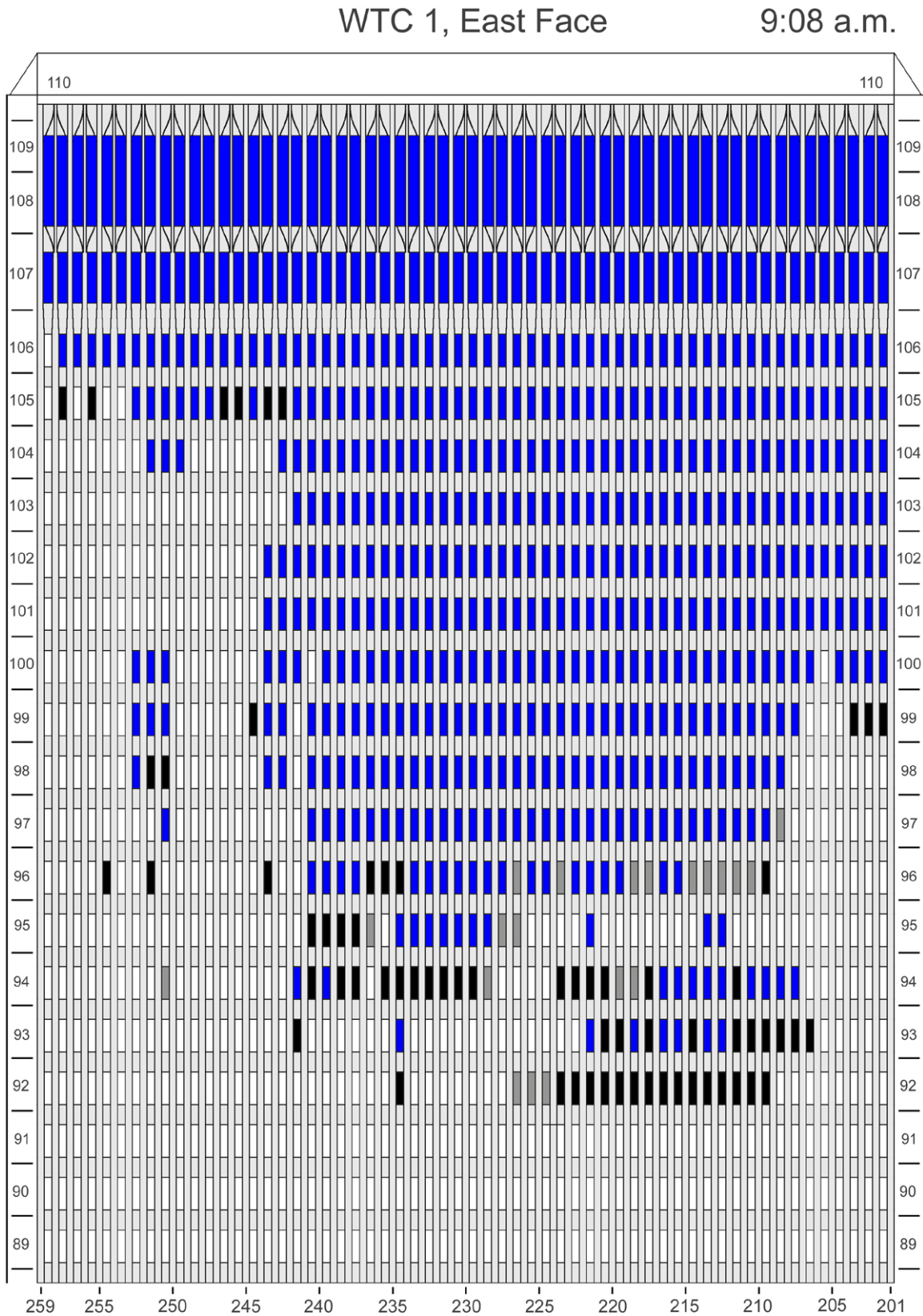
**Figure D-11. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:02 a.m. showing the condition of windows and locations of fires.**



**Figure D-12. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:02 a.m. showing windows where smoke was observed and those that were hidden from view.**

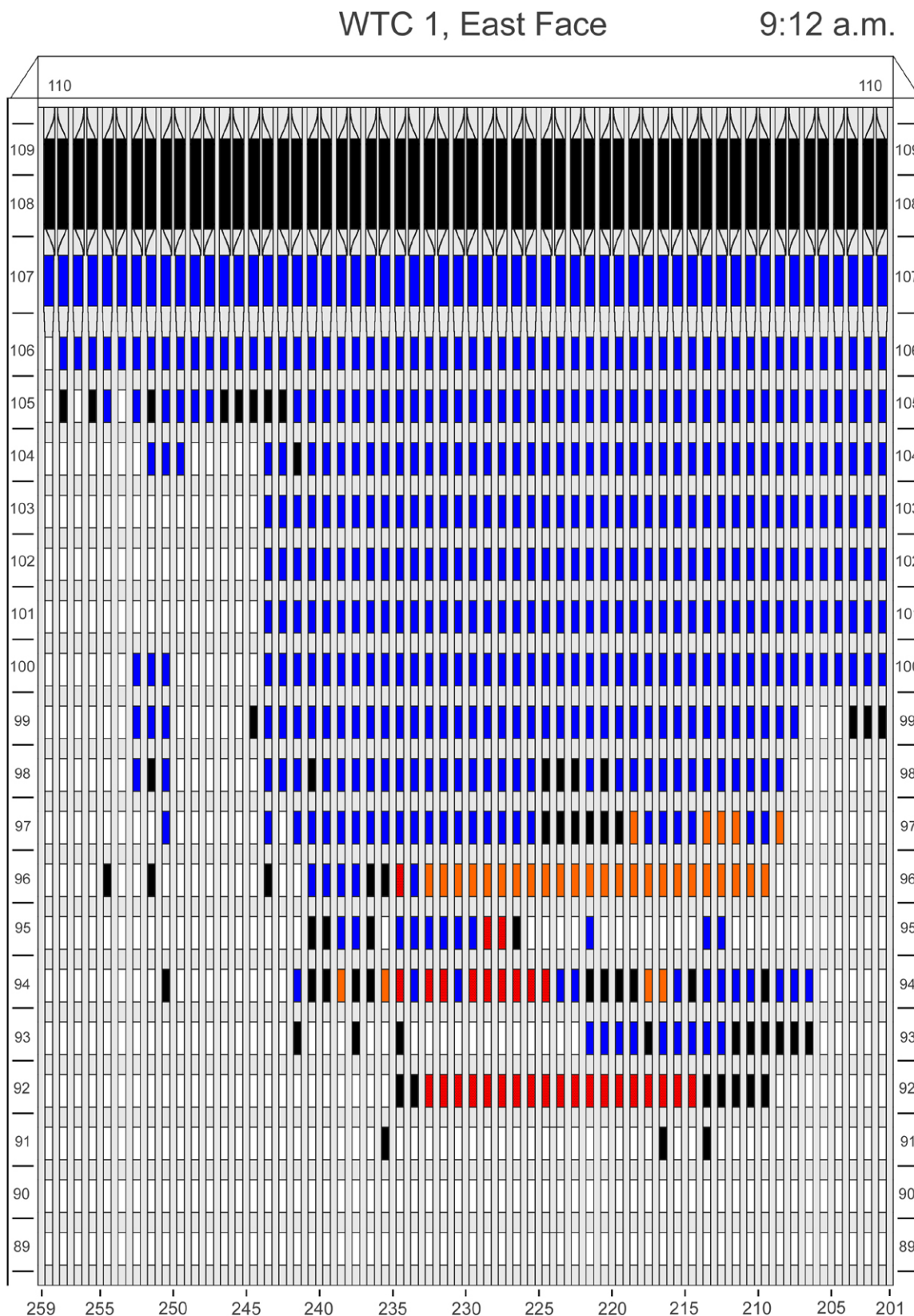


**Figure D-13. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:08 a.m. showing the condition of windows and locations of fires.**

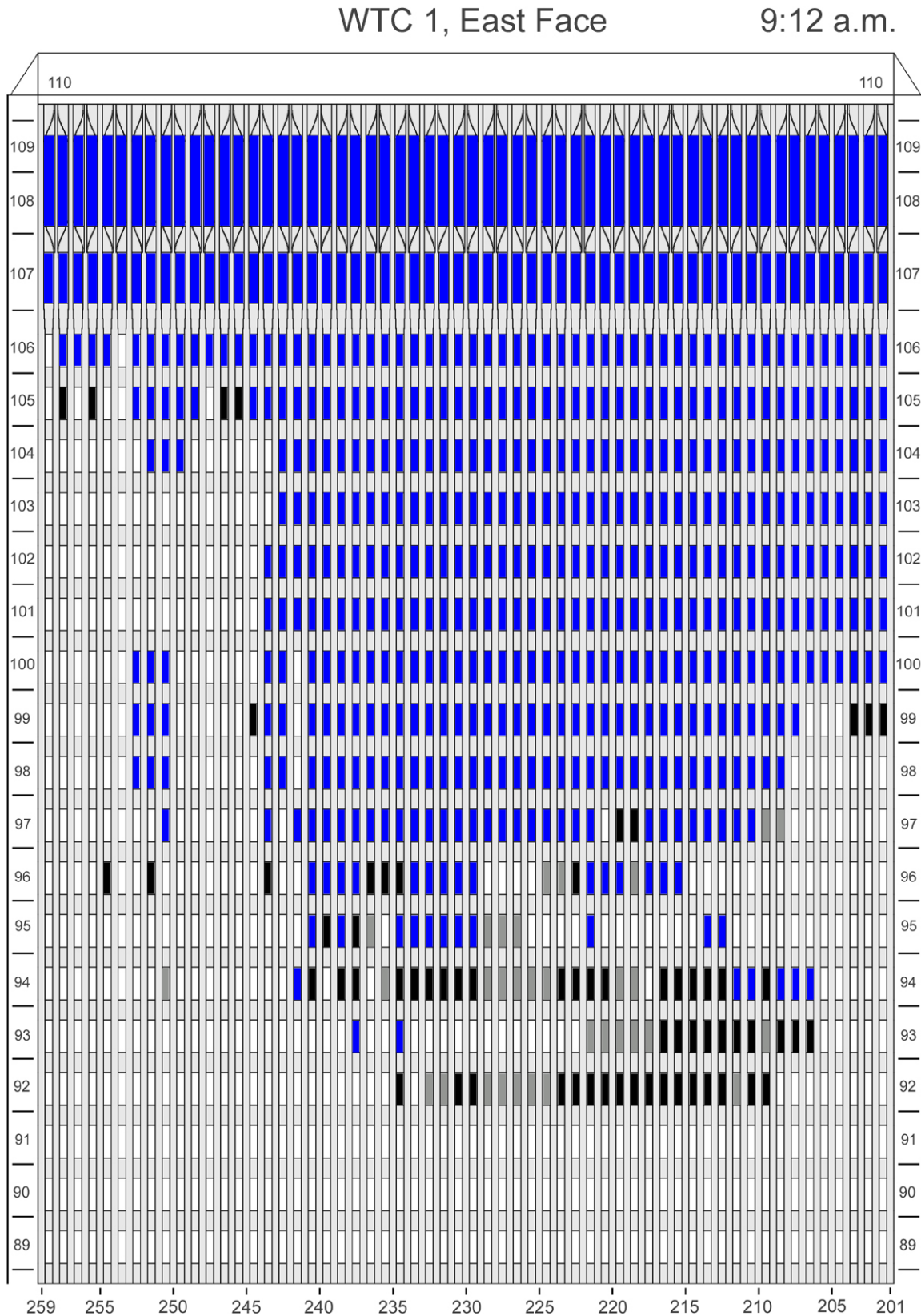


**Figure D-14. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:08 a.m. showing windows where smoke was observed and those that were hidden from view.**

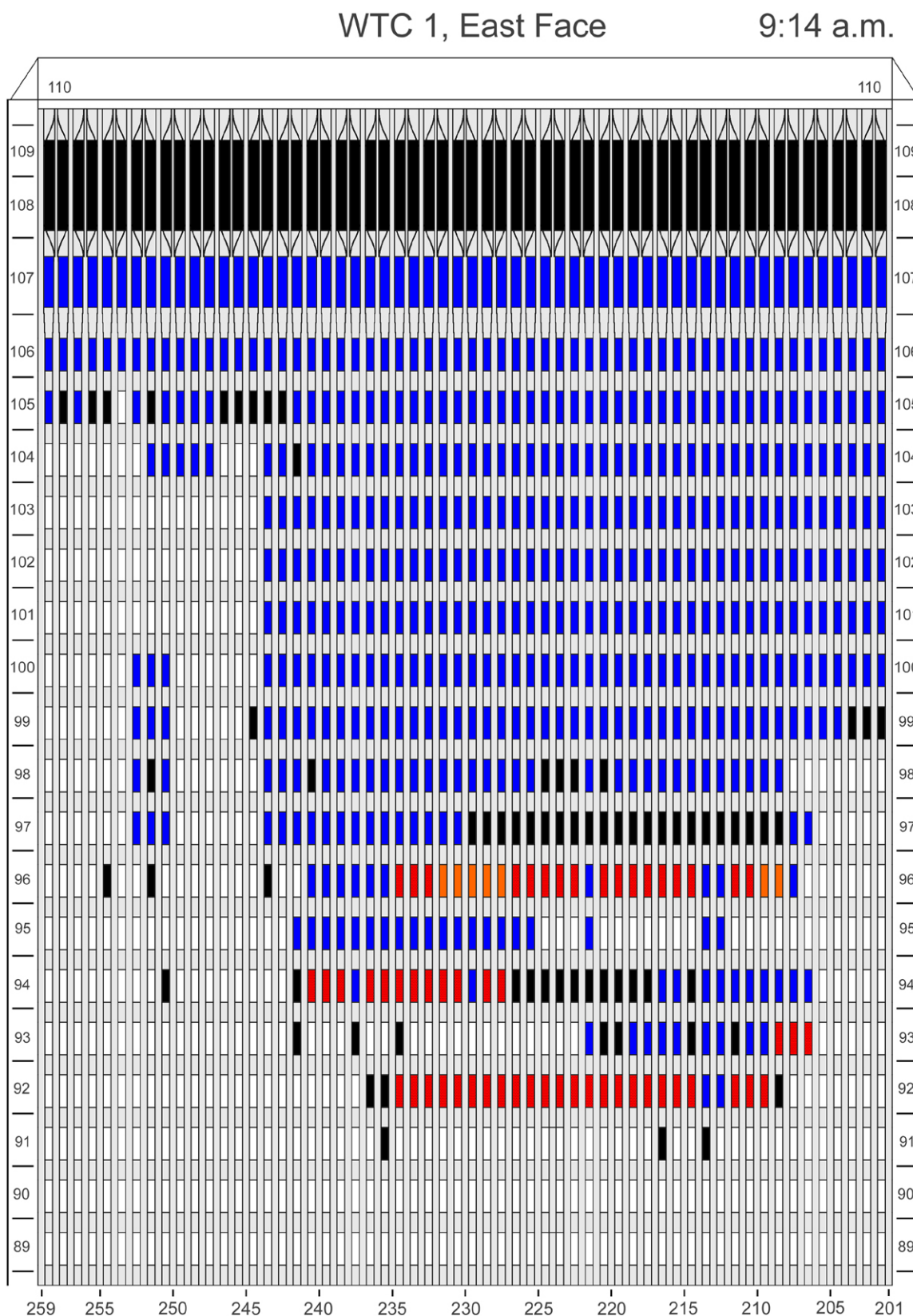




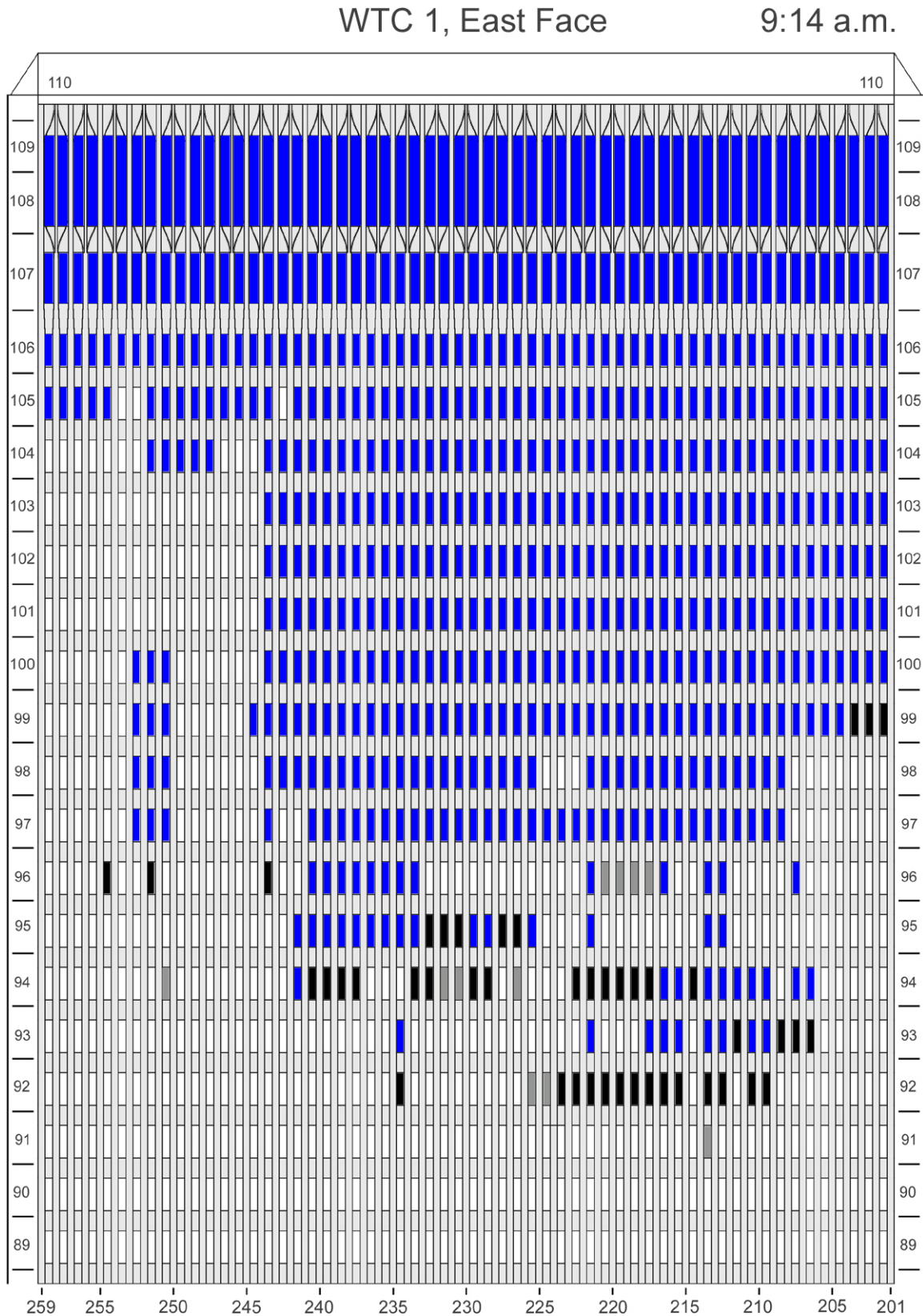
**Figure D-15. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:12 a.m. showing the condition of windows and locations of fires.**



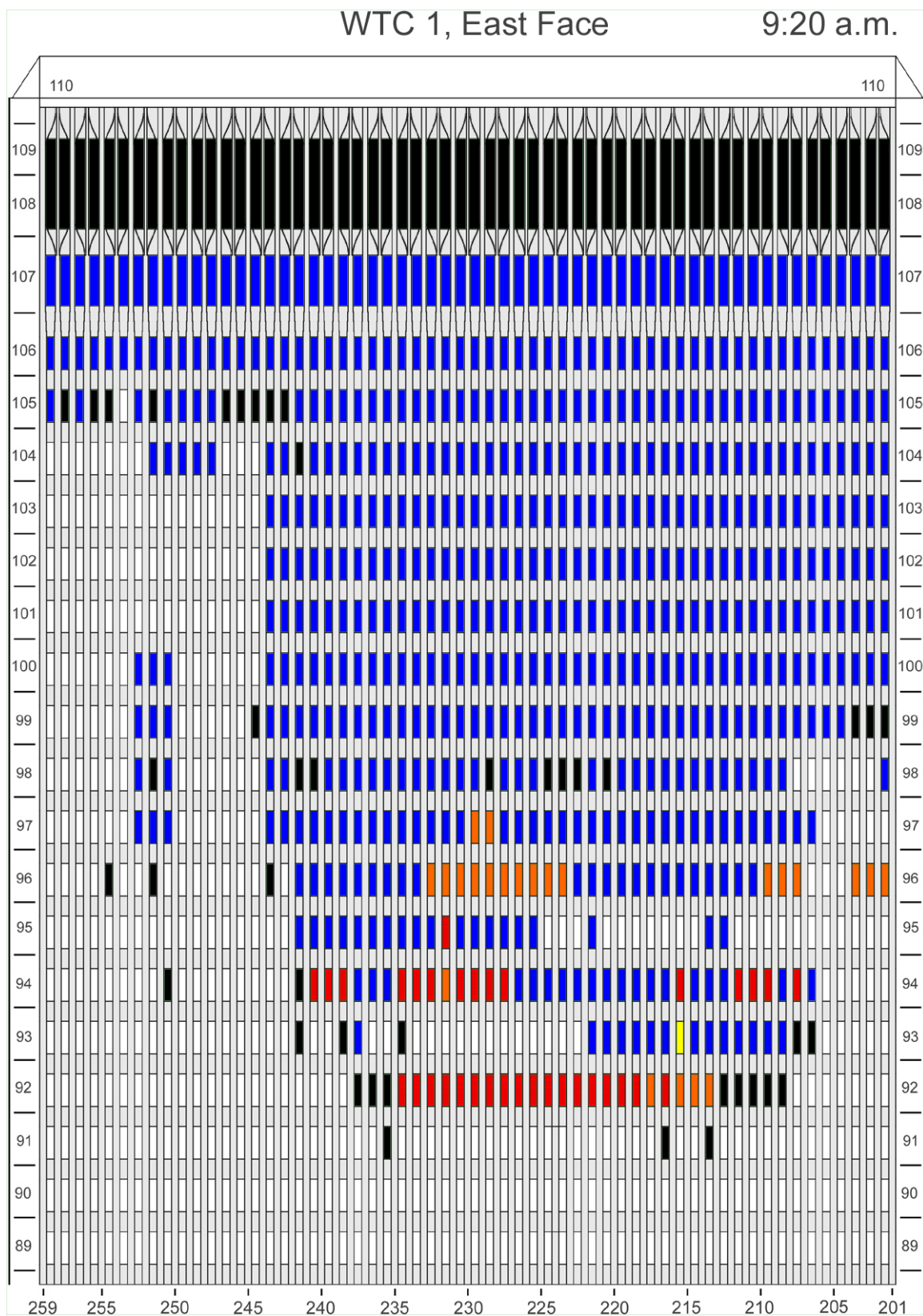
**Figure D-16. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:12 a.m. showing windows where smoke was observed and those that were hidden from view.**



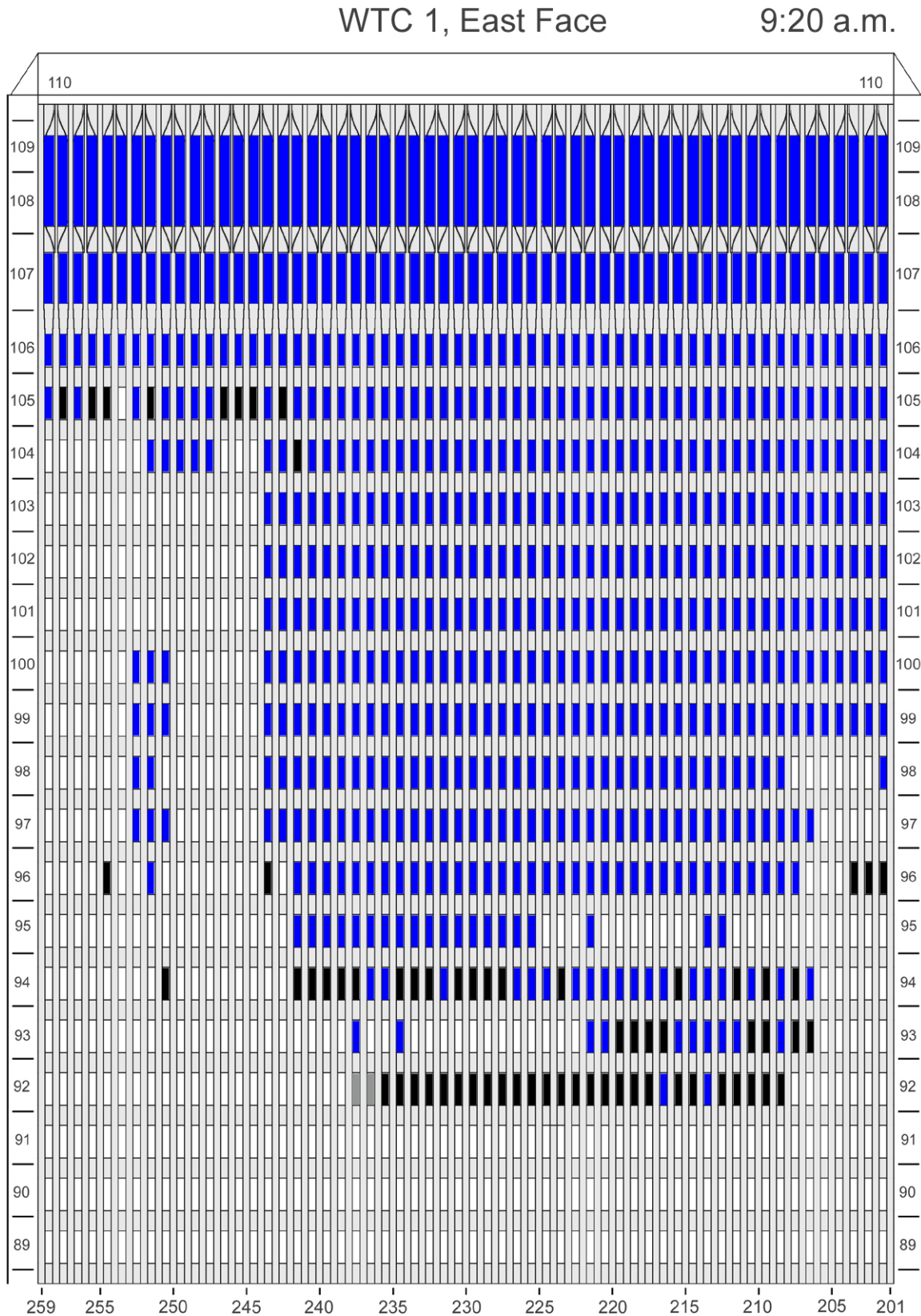




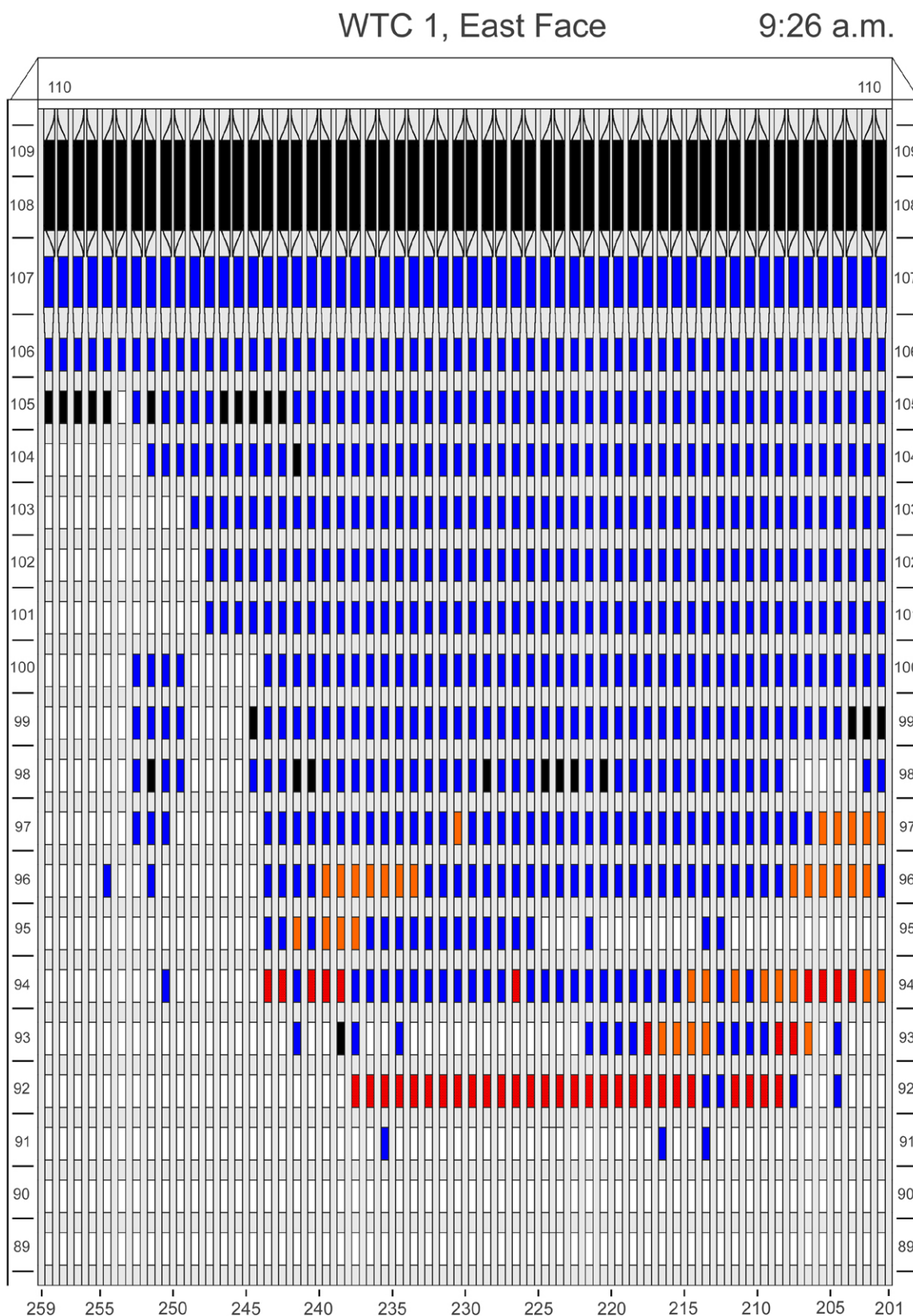
**Figure D-18. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:14 a.m. showing windows where smoke was observed and those that were hidden from view.**



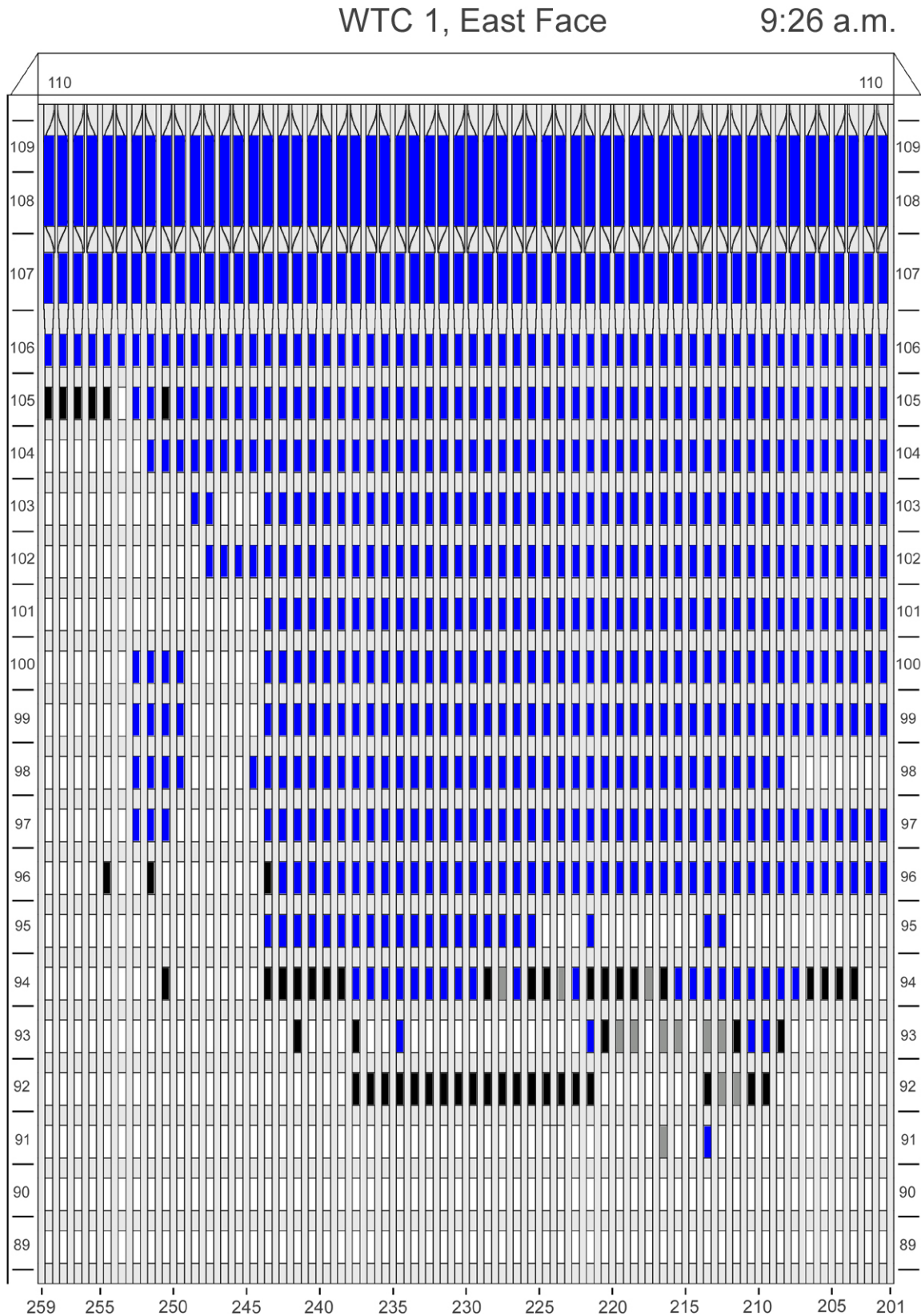
**Figure D-19. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:20 a.m. showing the condition of windows and locations of fires.**



**Figure D-20. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:20 a.m. showing windows where smoke was observed and those that were hidden from view.**

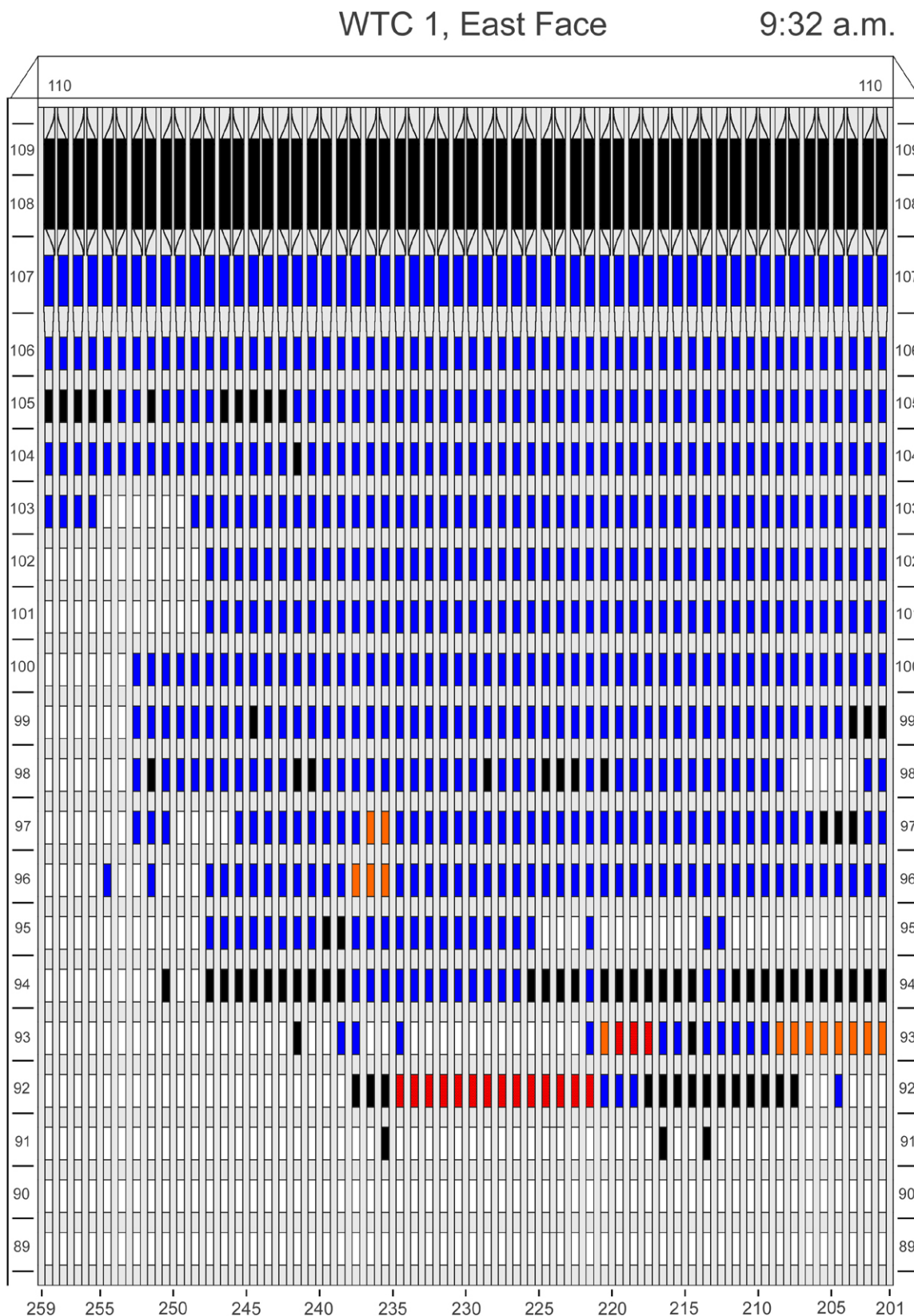


**Figure D-21. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:26 a.m. showing the condition of windows and locations of fires.**

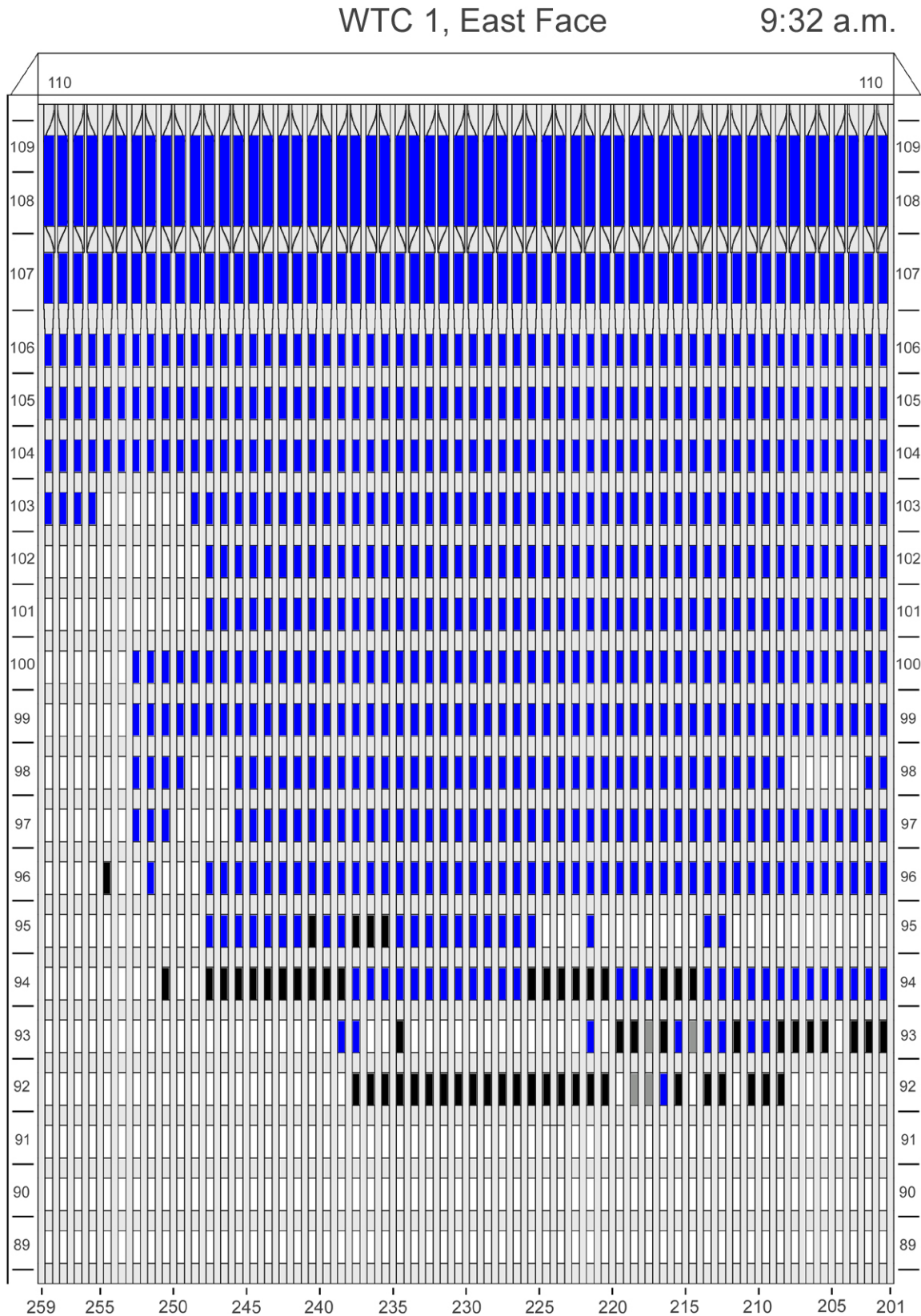


**Figure D-22. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:26 a.m. showing windows where smoke was observed and those that were hidden from view.**

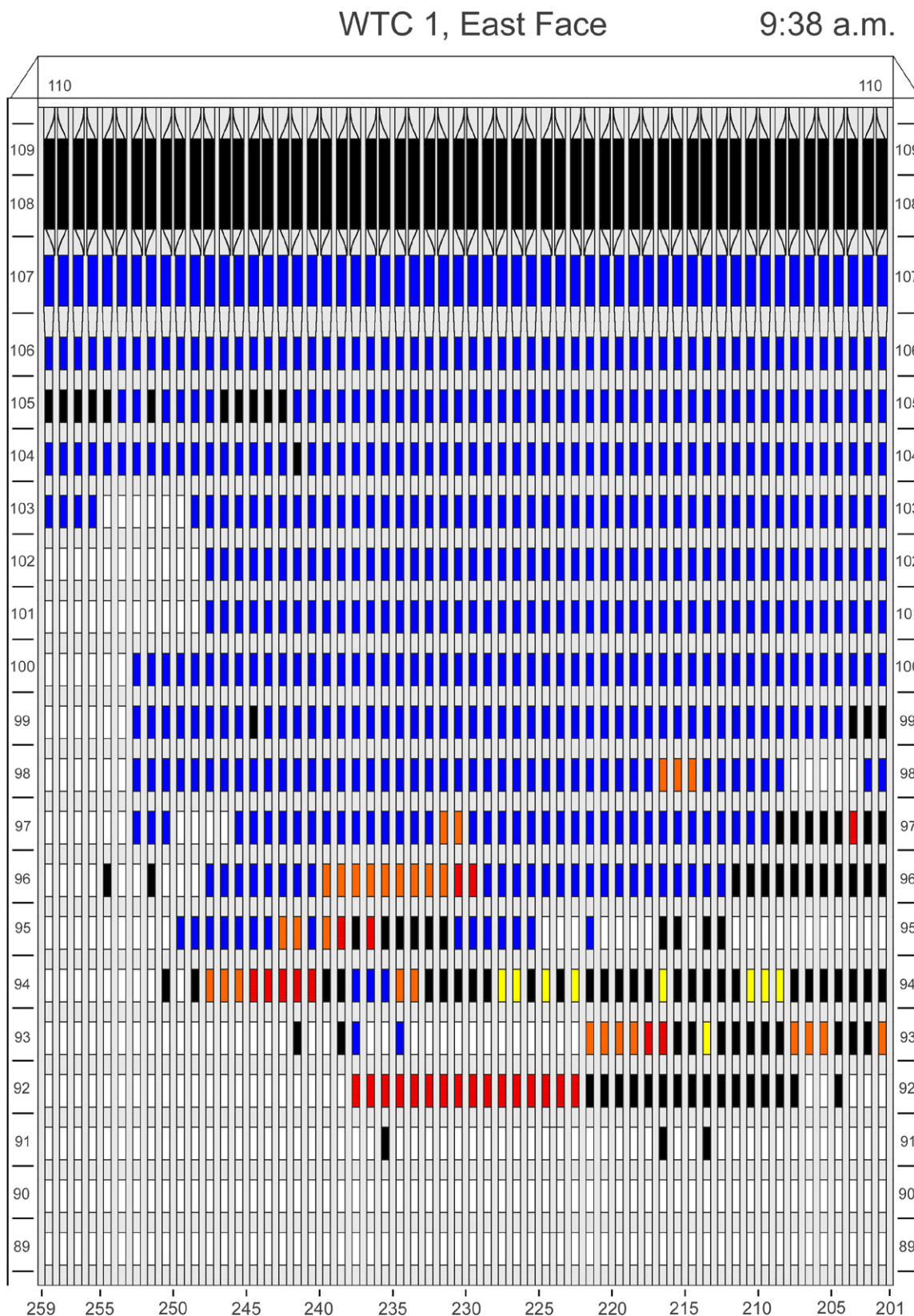




**Figure D-23. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:32 a.m. showing the condition of windows and locations of fires.**

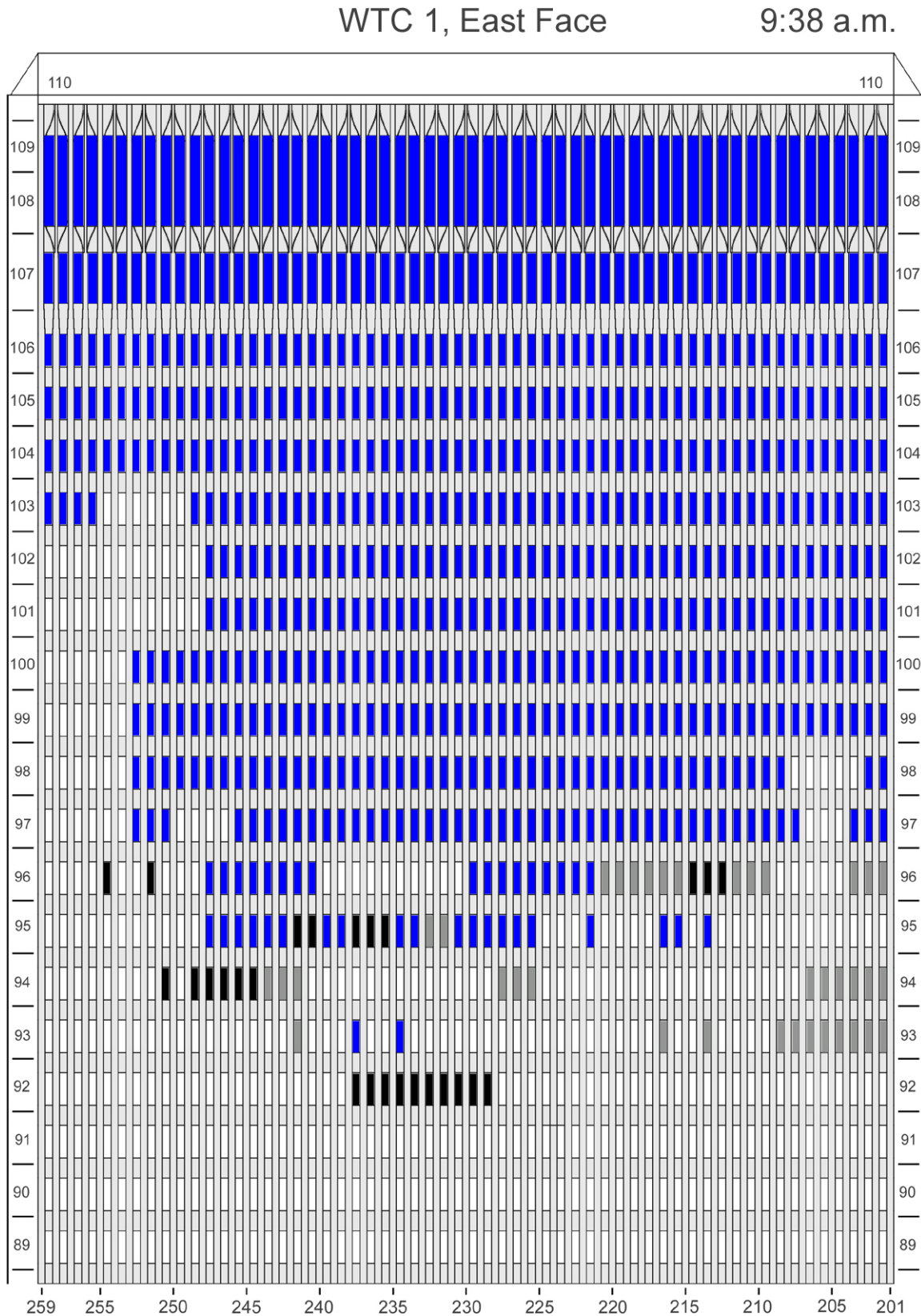


**Figure D-24. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:32 a.m. showing windows where smoke was observed and those that were hidden from view.**

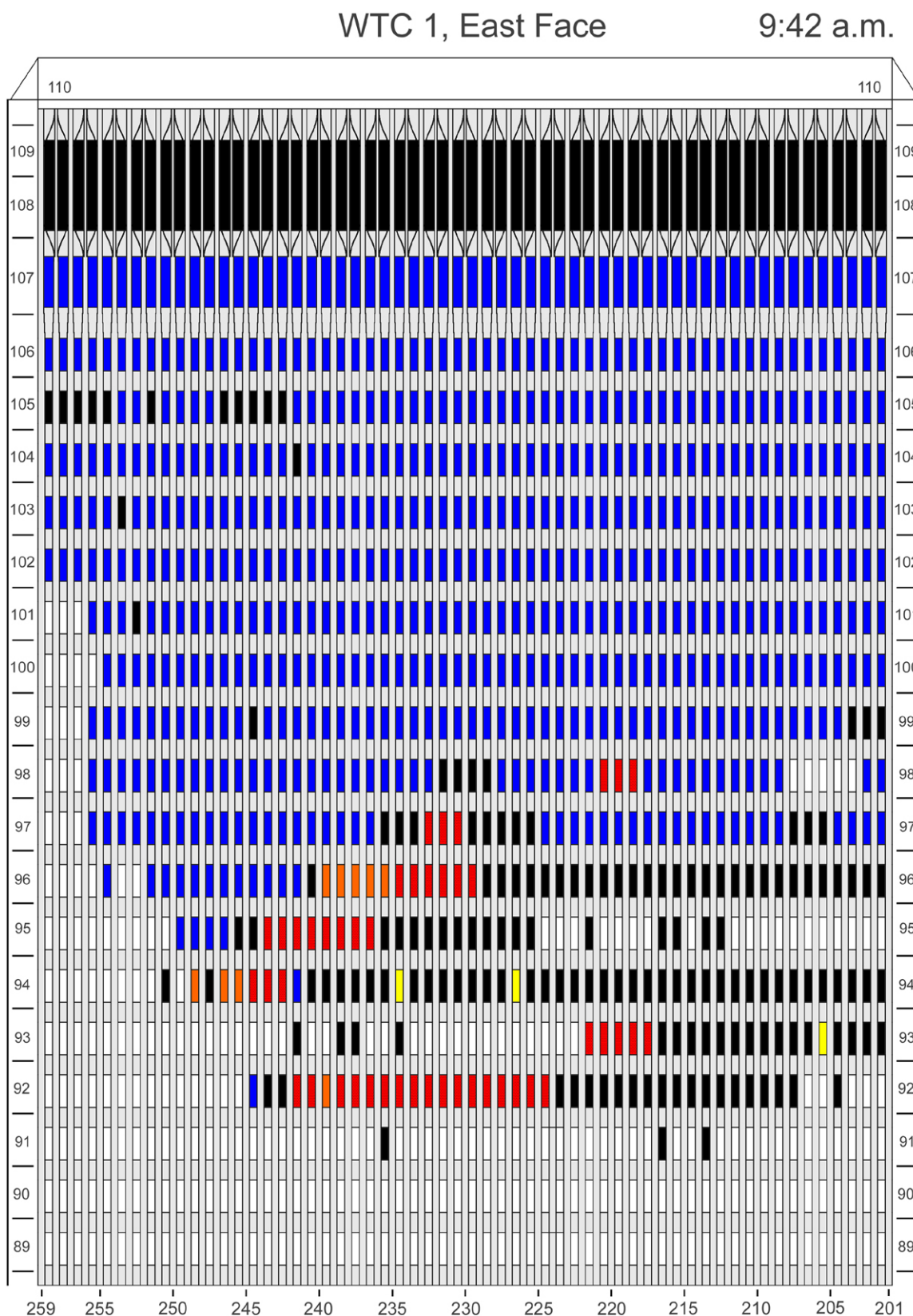


**Figure D-25. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:38 a.m. showing the condition of windows and locations of fires.**

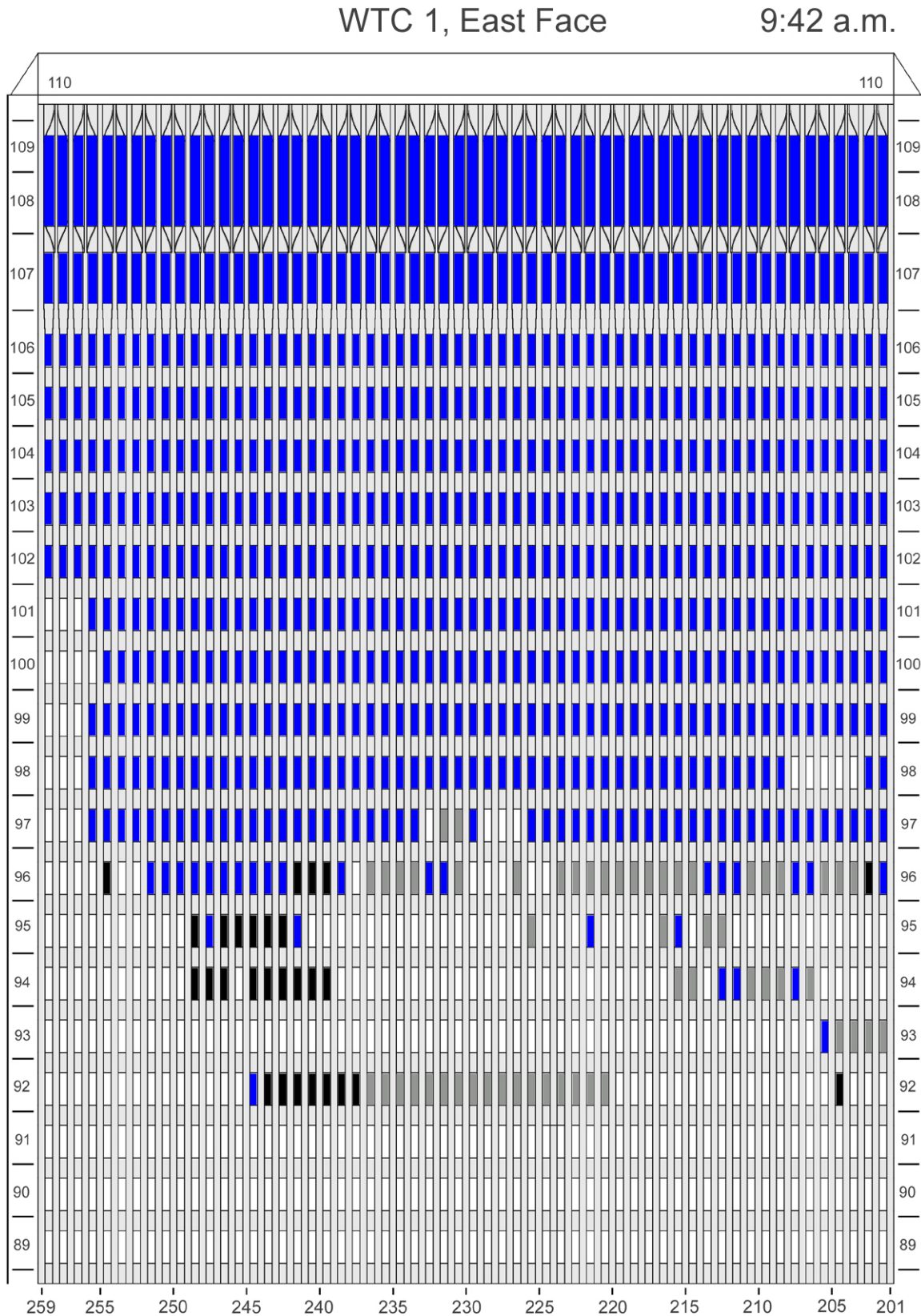




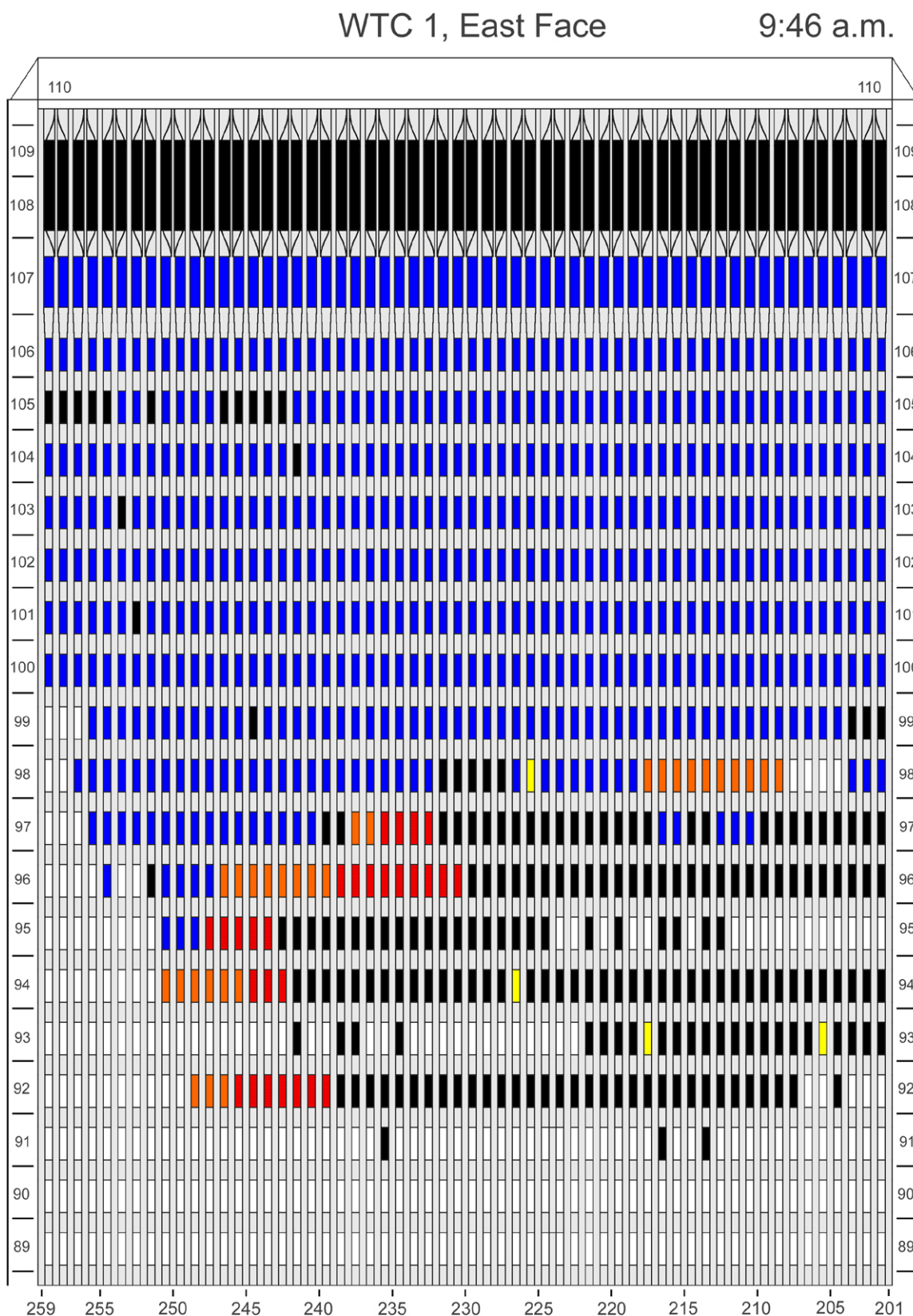
**Figure D-26. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:38 a.m. showing windows where smoke was observed and those that were hidden from view.**



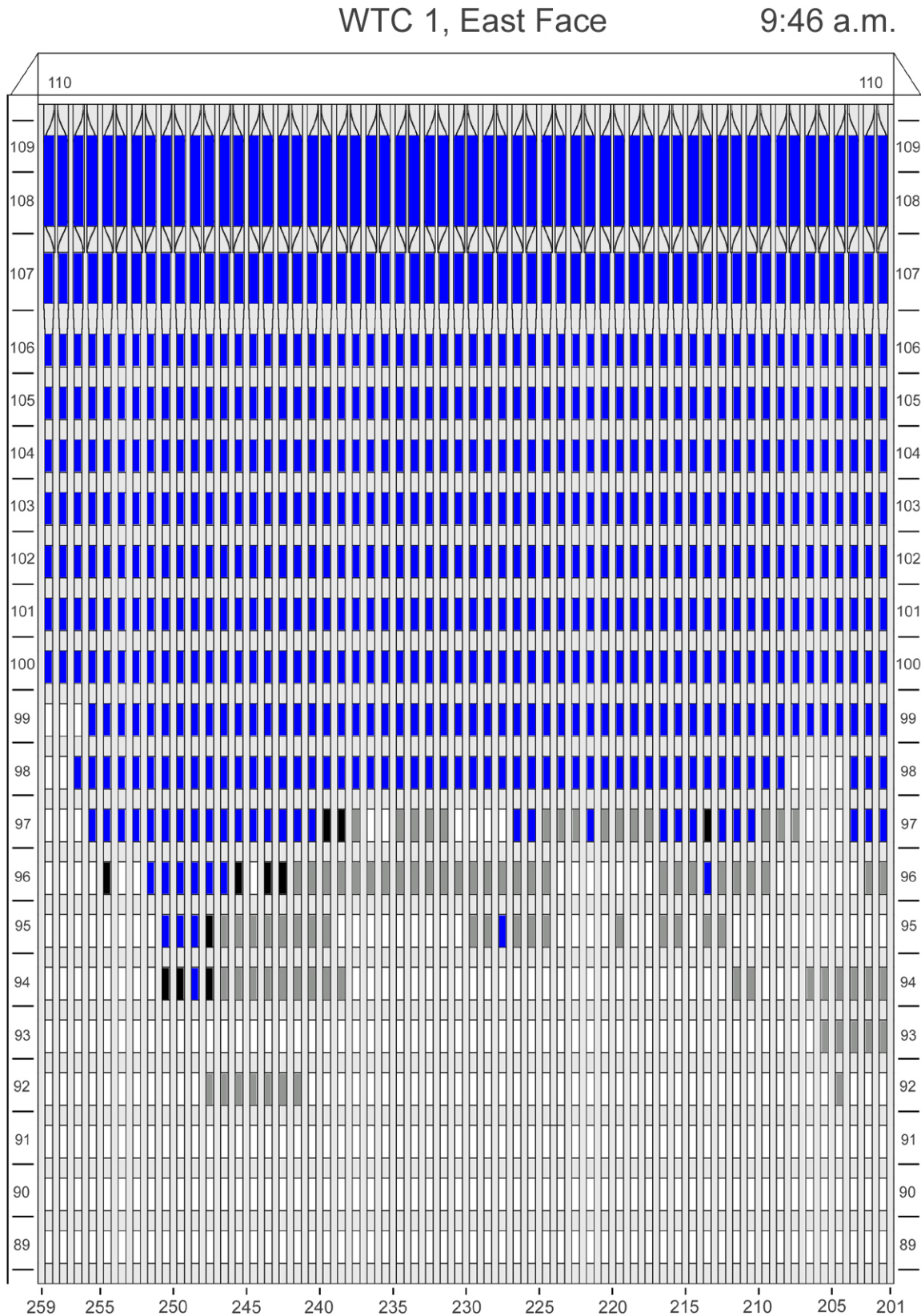
**Figure D-27. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:42 a.m. showing the condition of windows and locations of fires.**



**Figure D-28. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:42 a.m. showing windows where smoke was observed and those that were hidden from view.**

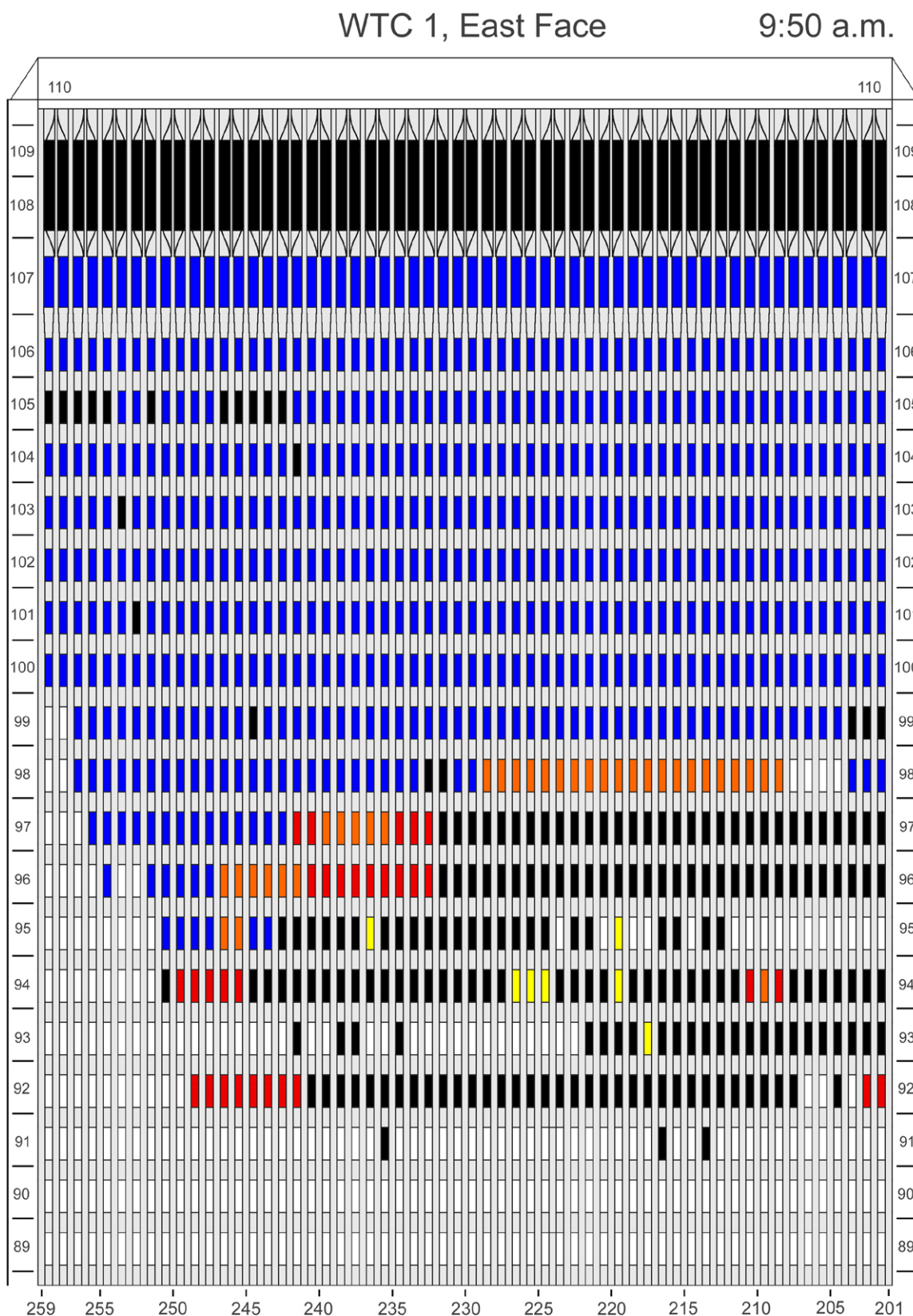


**Figure D-29. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:46 a.m. showing the condition of windows and locations of fires.**

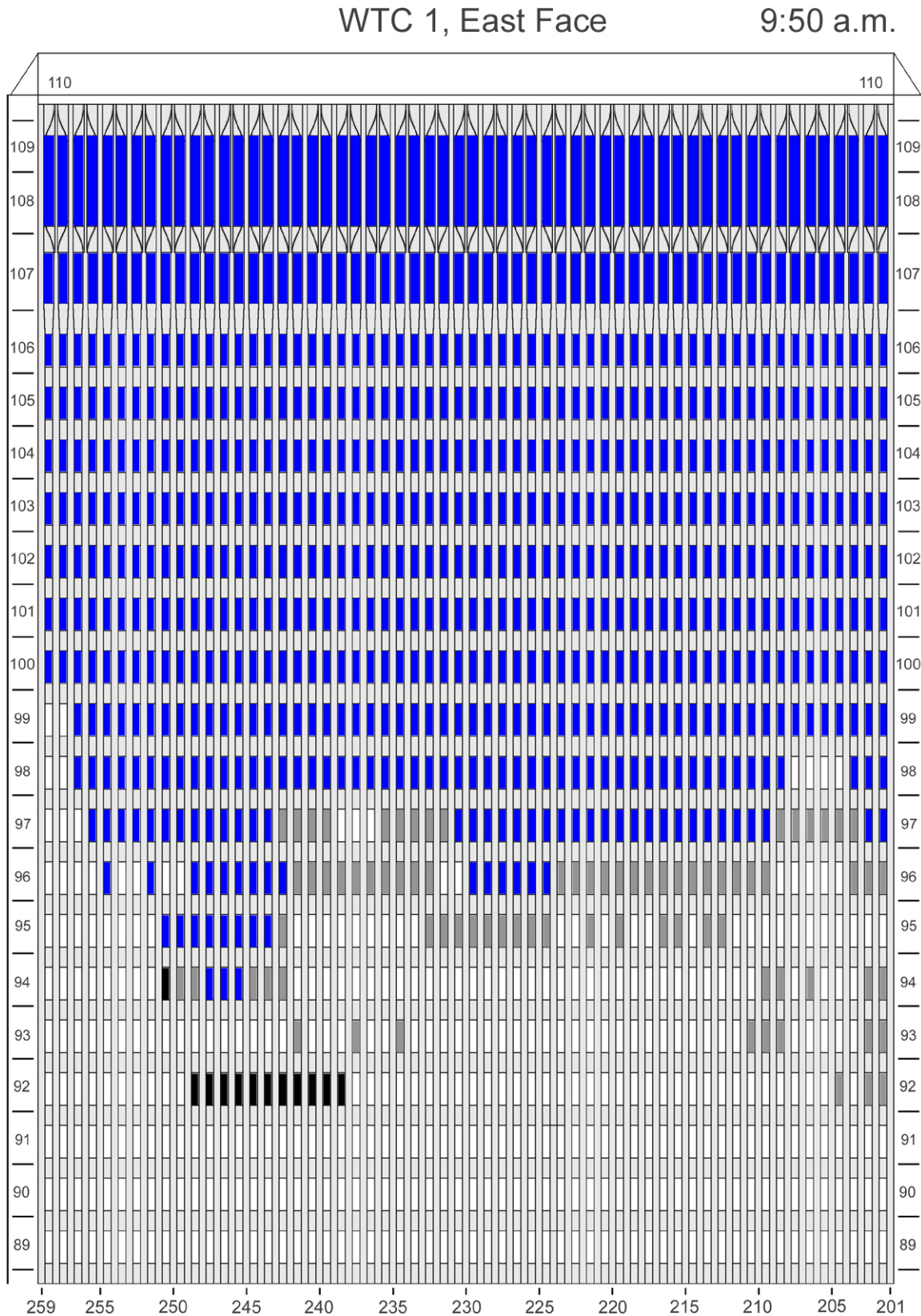


**Figure D-30. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:46 a.m. showing windows where smoke was observed and those that were hidden from view.**

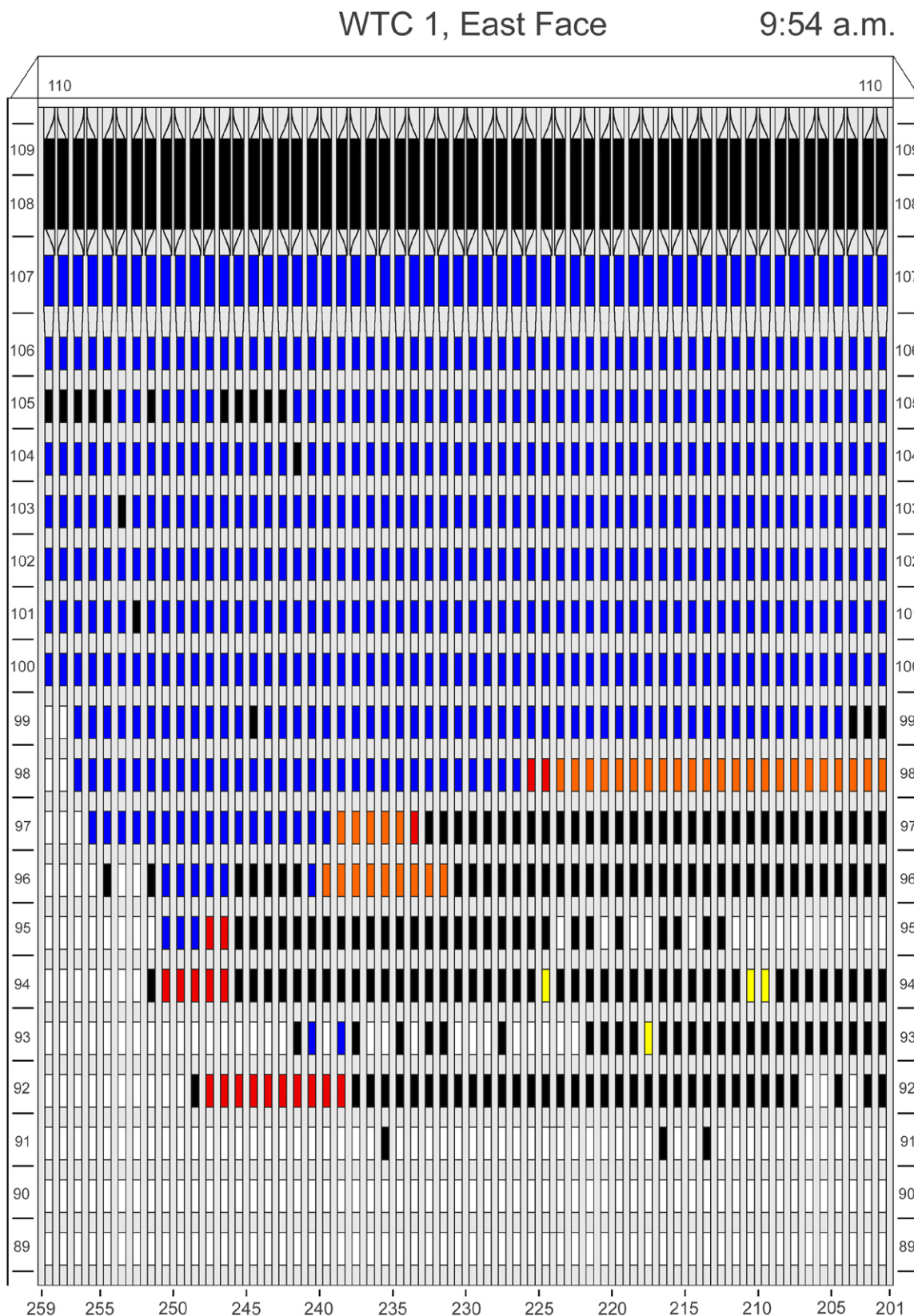




**Figure D-31. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:50 a.m. showing the condition of windows and locations of fires.**

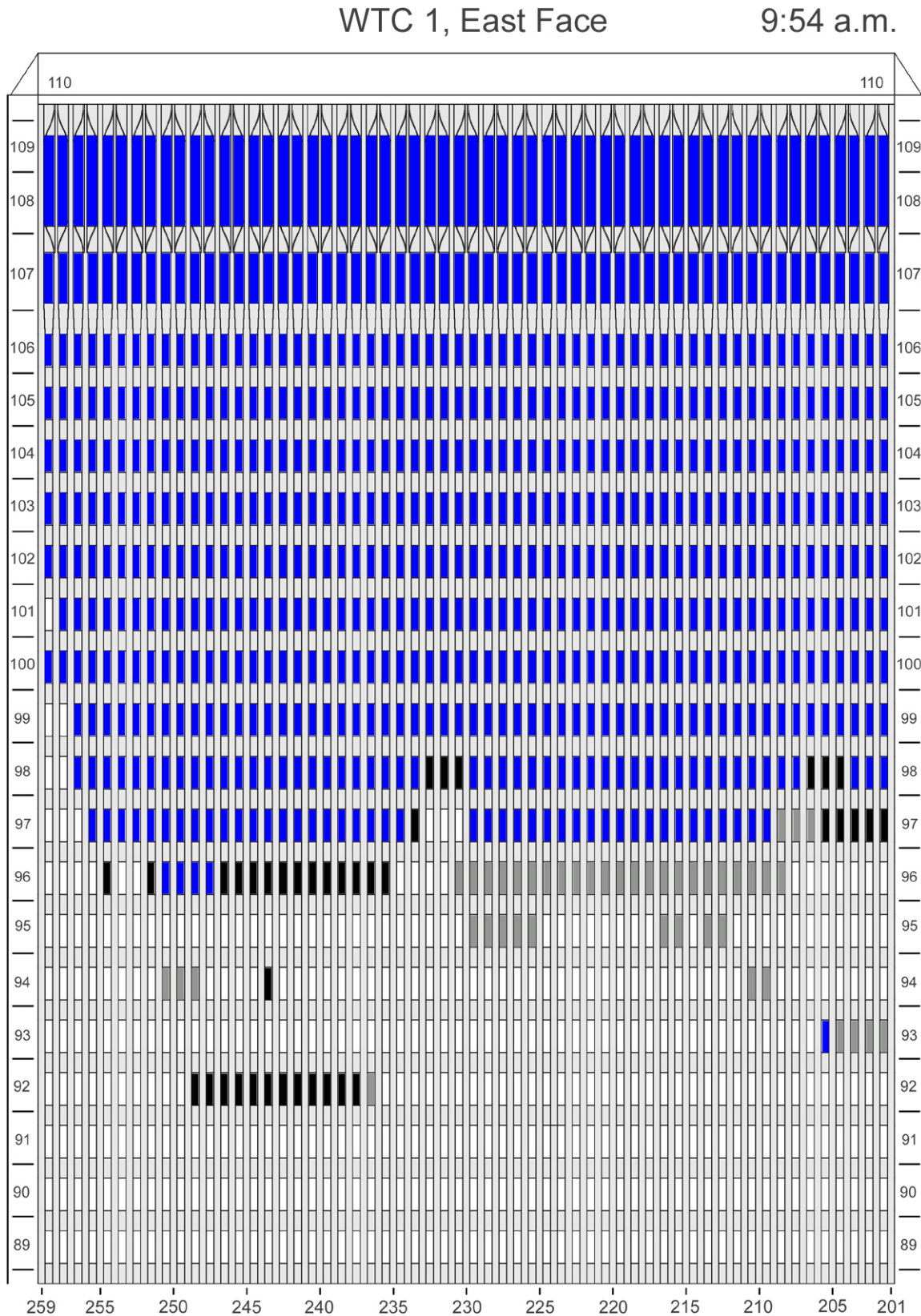


**Figure D-32. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:50 a.m. showing windows where smoke was observed and those that were hidden from view.**



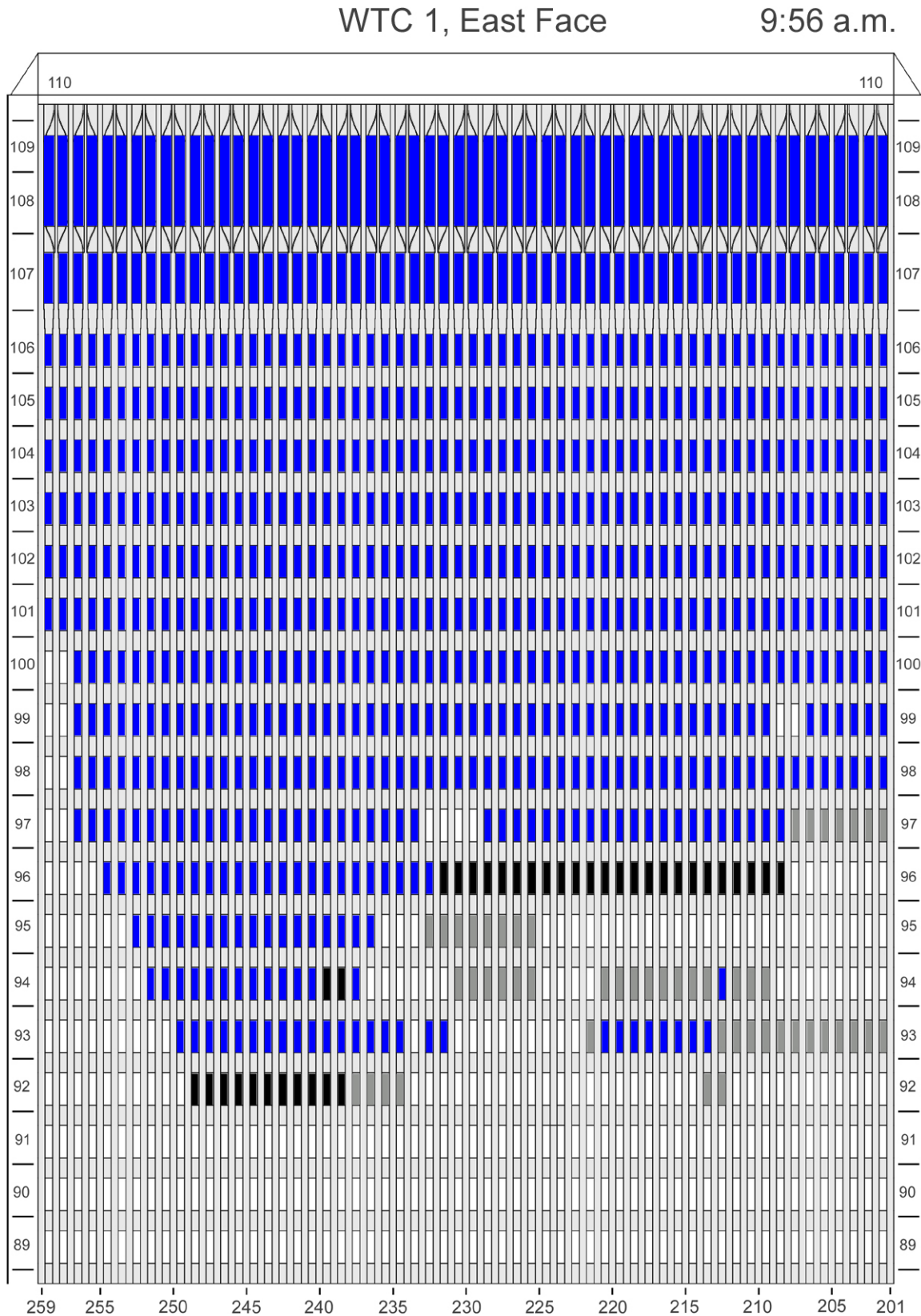
**Figure D-33. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:54 a.m. showing the condition of windows and locations of fires.**



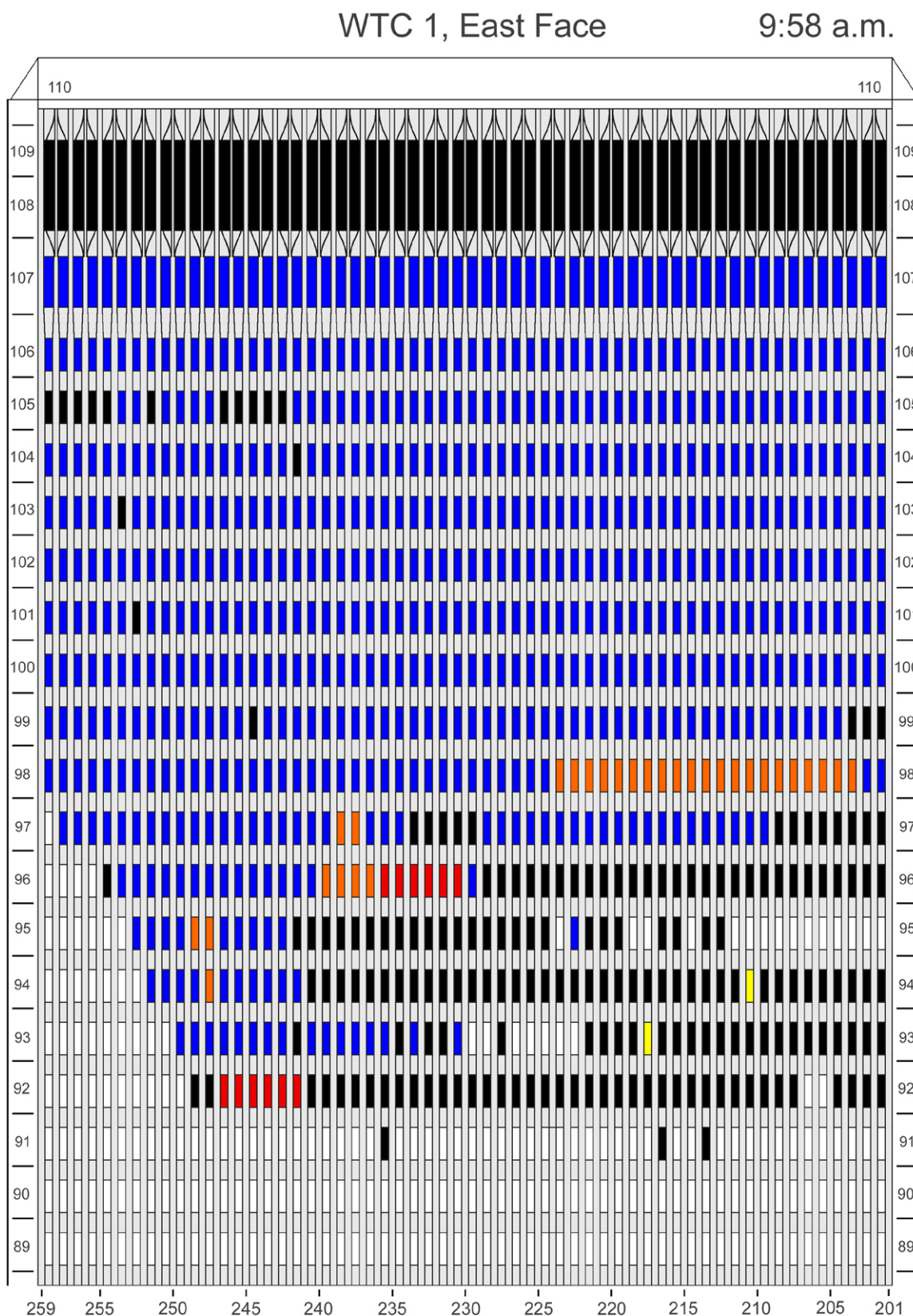


**Figure D-34. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:54 a.m. showing windows where smoke was observed and those that were hidden from view.**

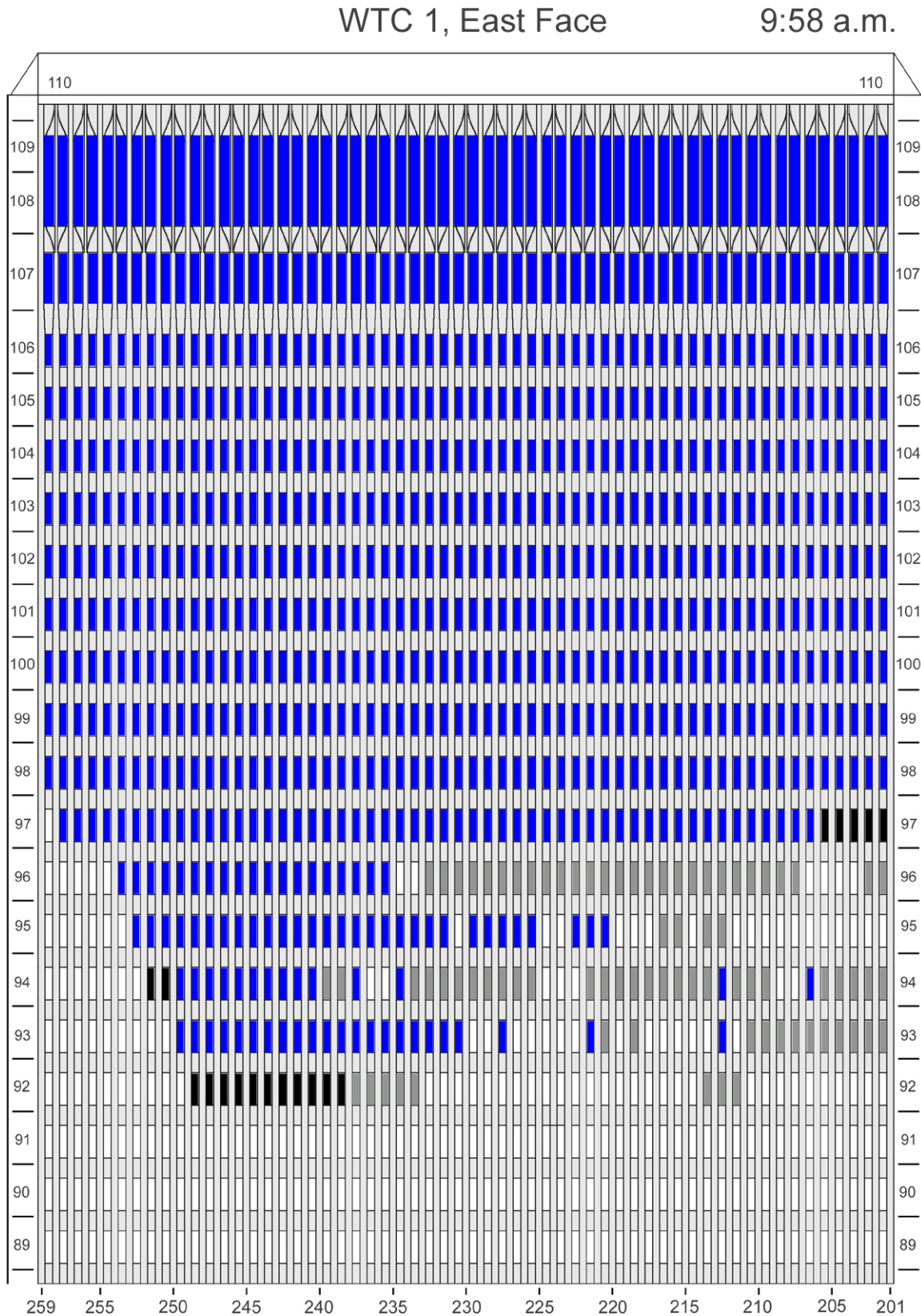




**Figure D-36. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:56 a.m. showing windows where smoke was observed and those that were hidden from view.**

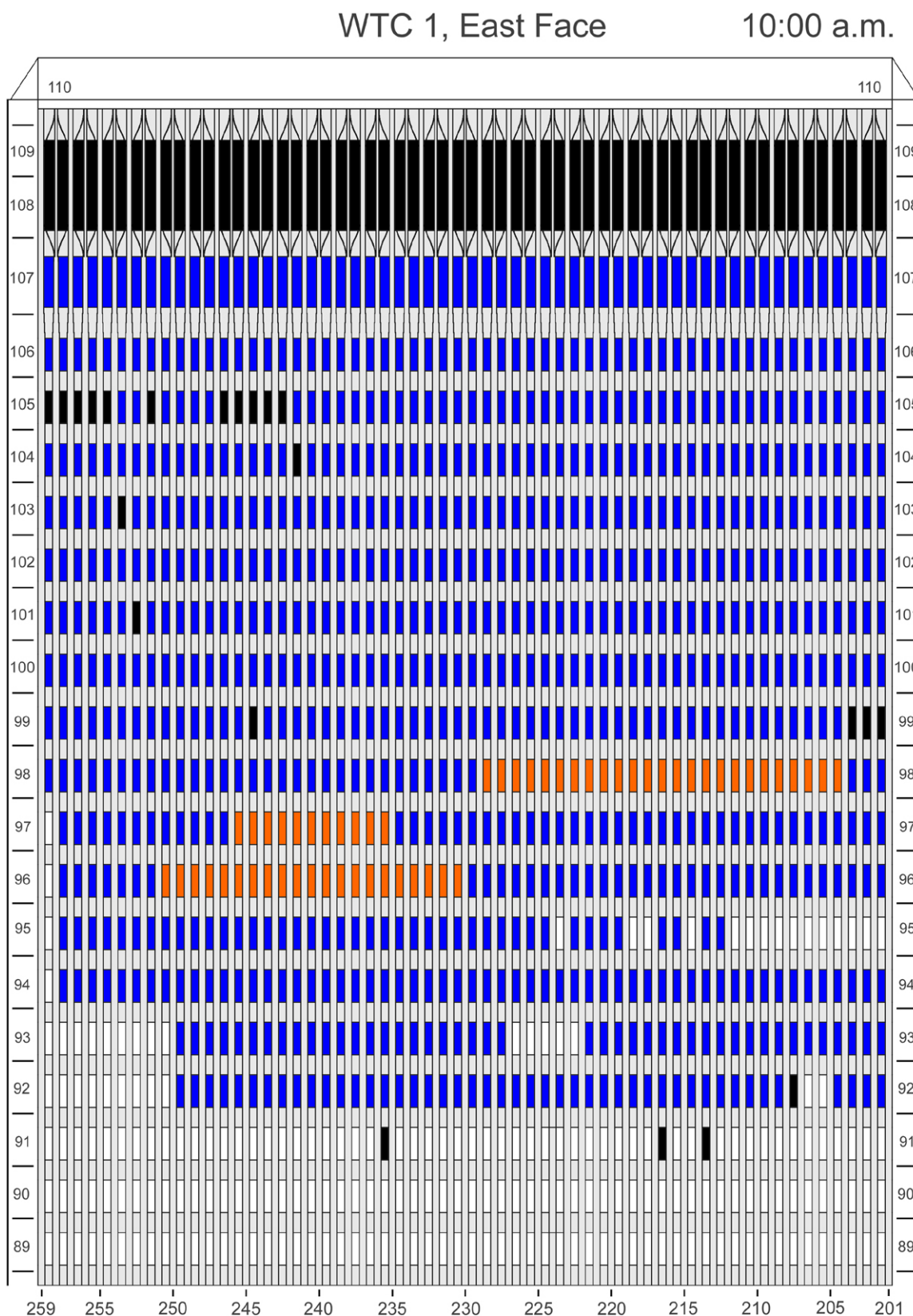


**Figure D-37. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:58 a.m. showing the condition of windows and locations of fires.**

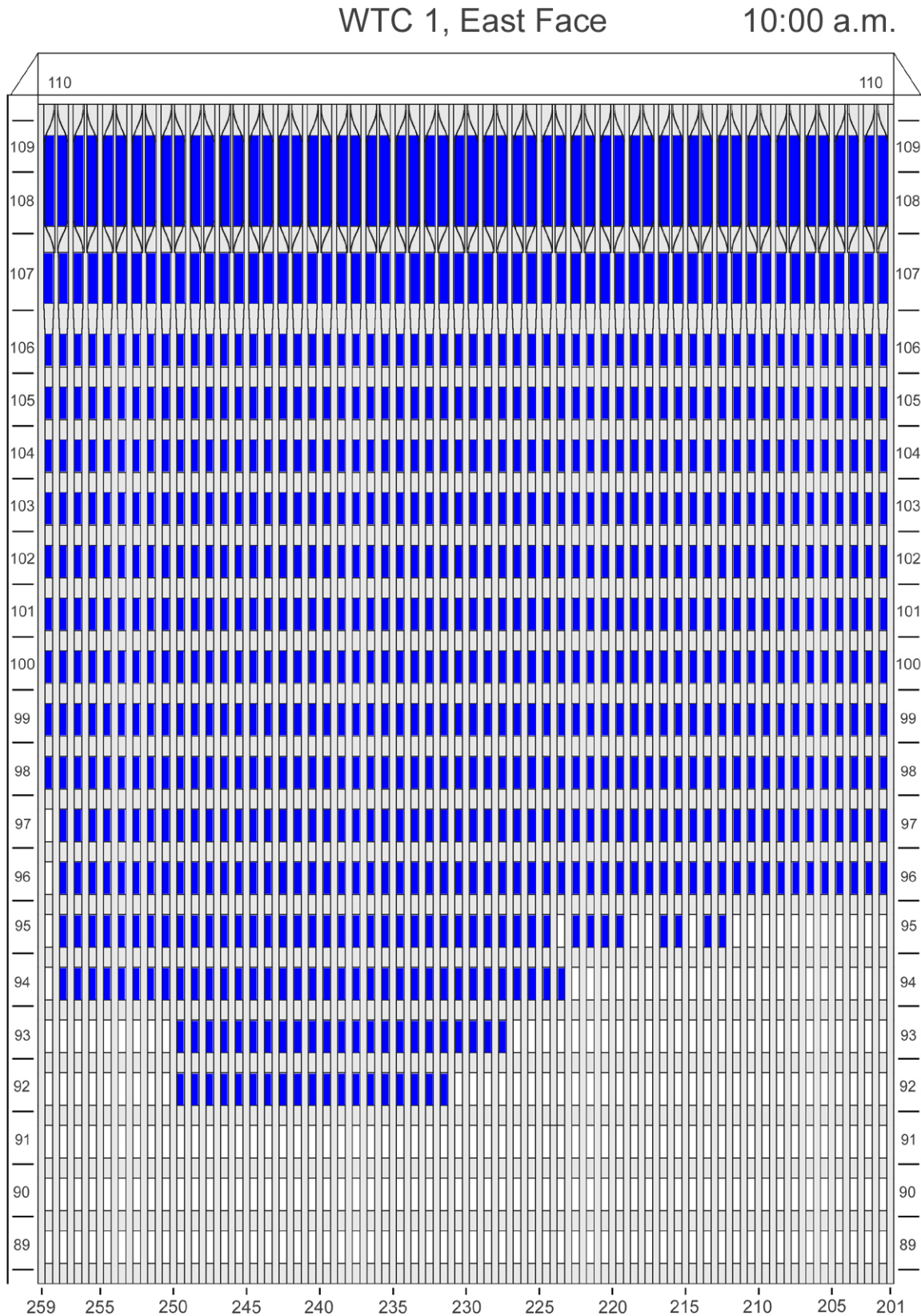


**Figure D-38. Diagram of the east face of WTC 1 for floors 89 to 110 at 9:58 a.m. showing windows where smoke was observed and those that were hidden from view.**

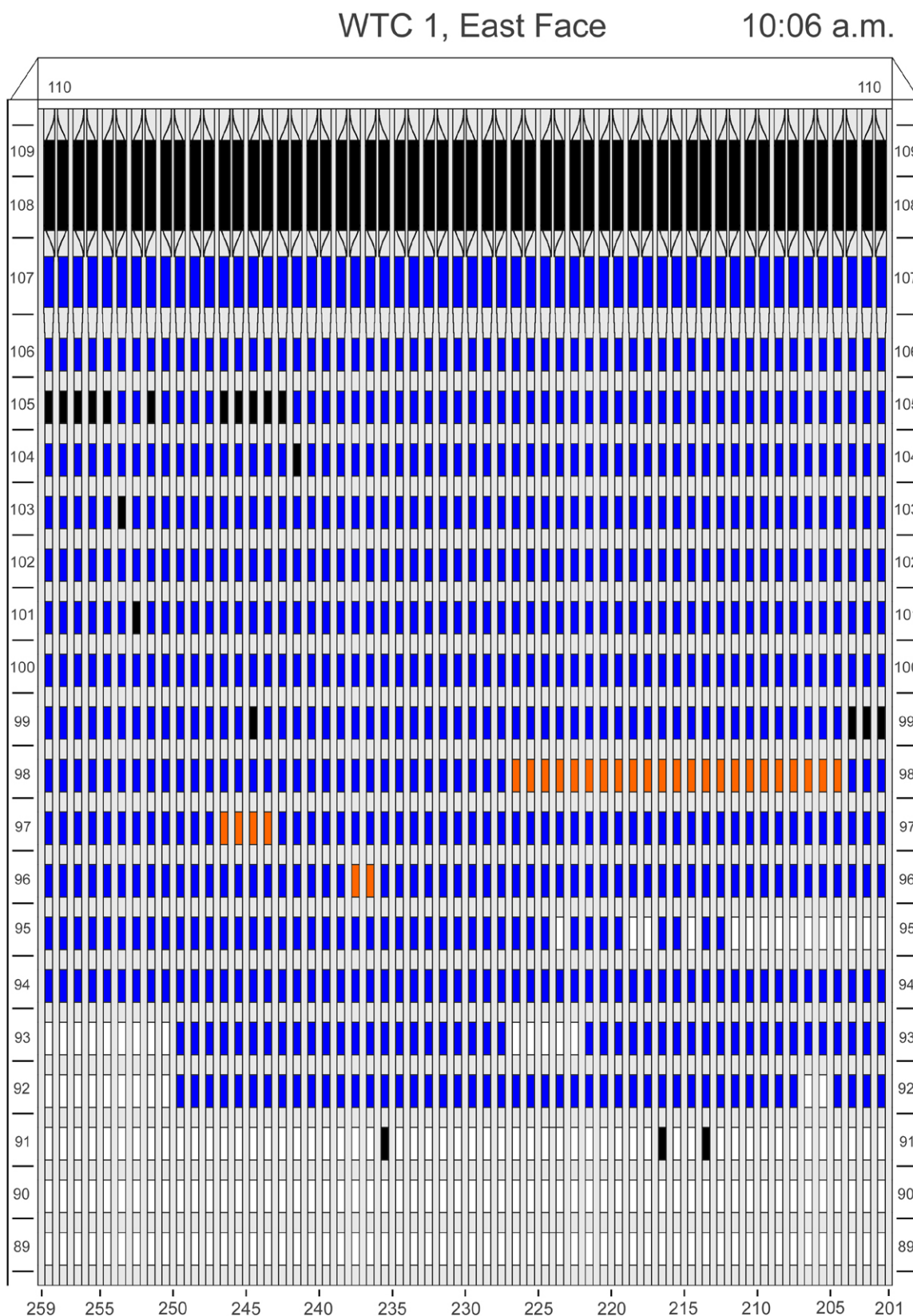




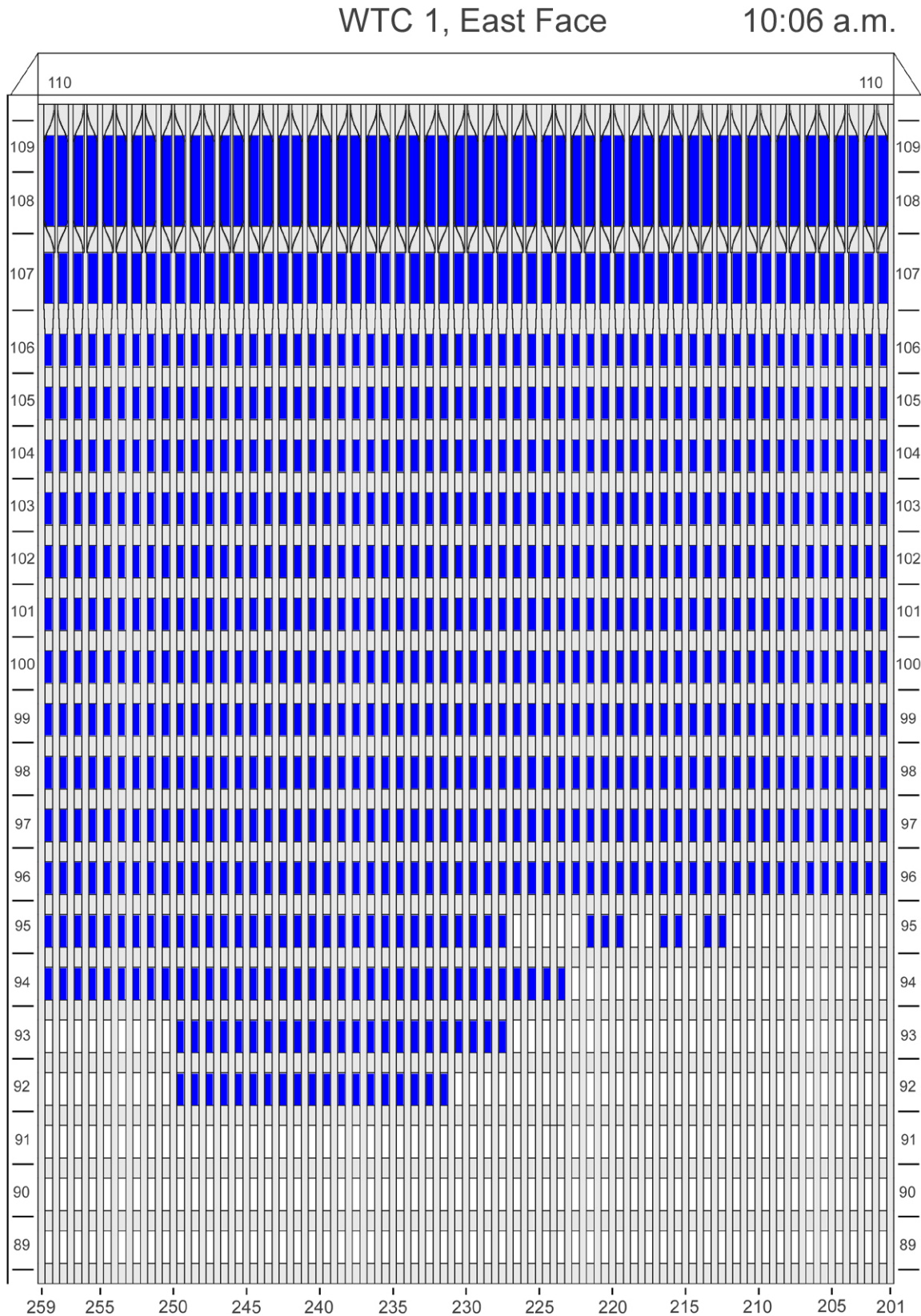
**Figure D-39. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:00 a.m. showing the condition of windows and locations of fires.**



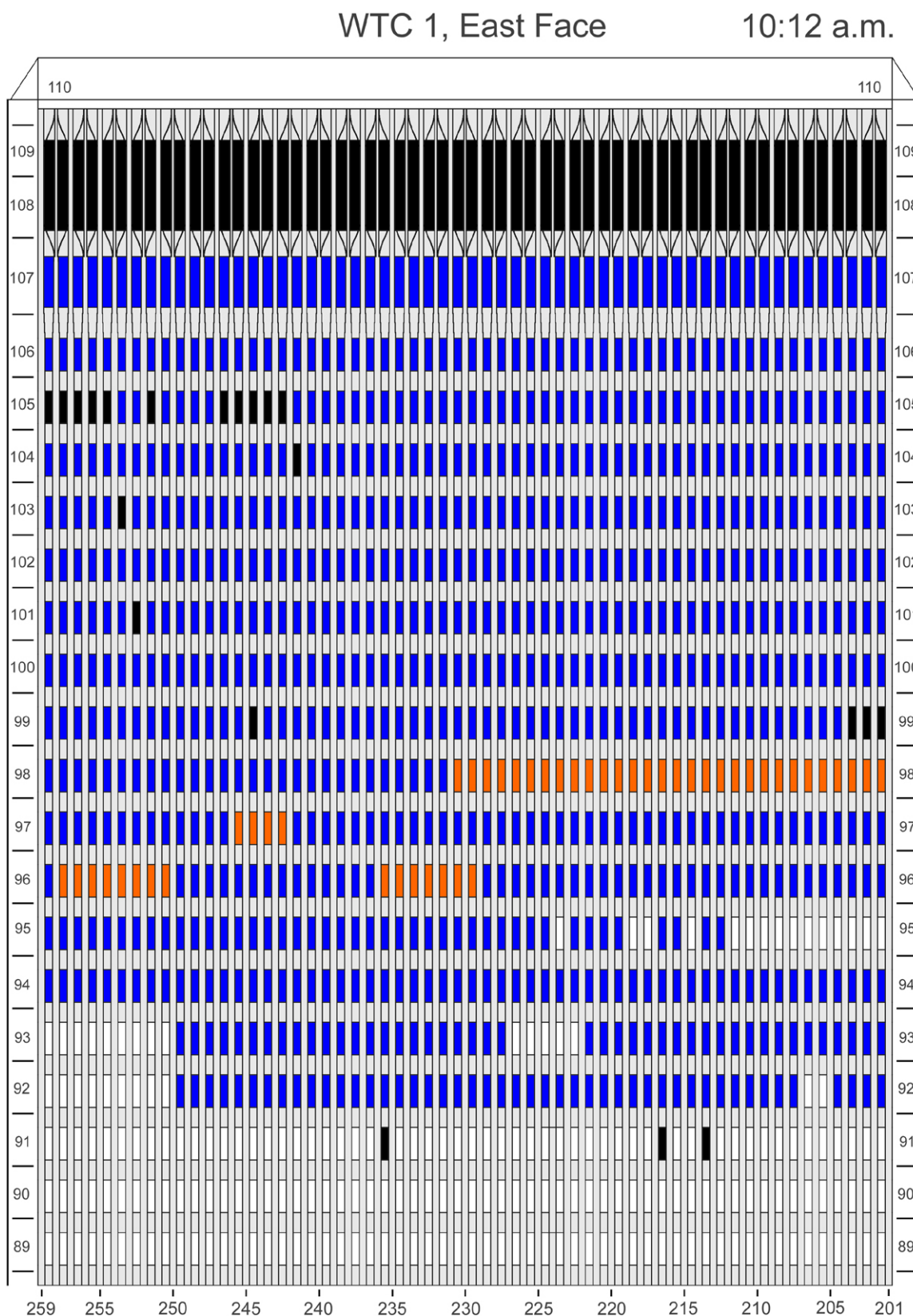
**Figure D-40. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:00 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure D-41. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:06 a.m. showing the condition of windows and locations of fires.**

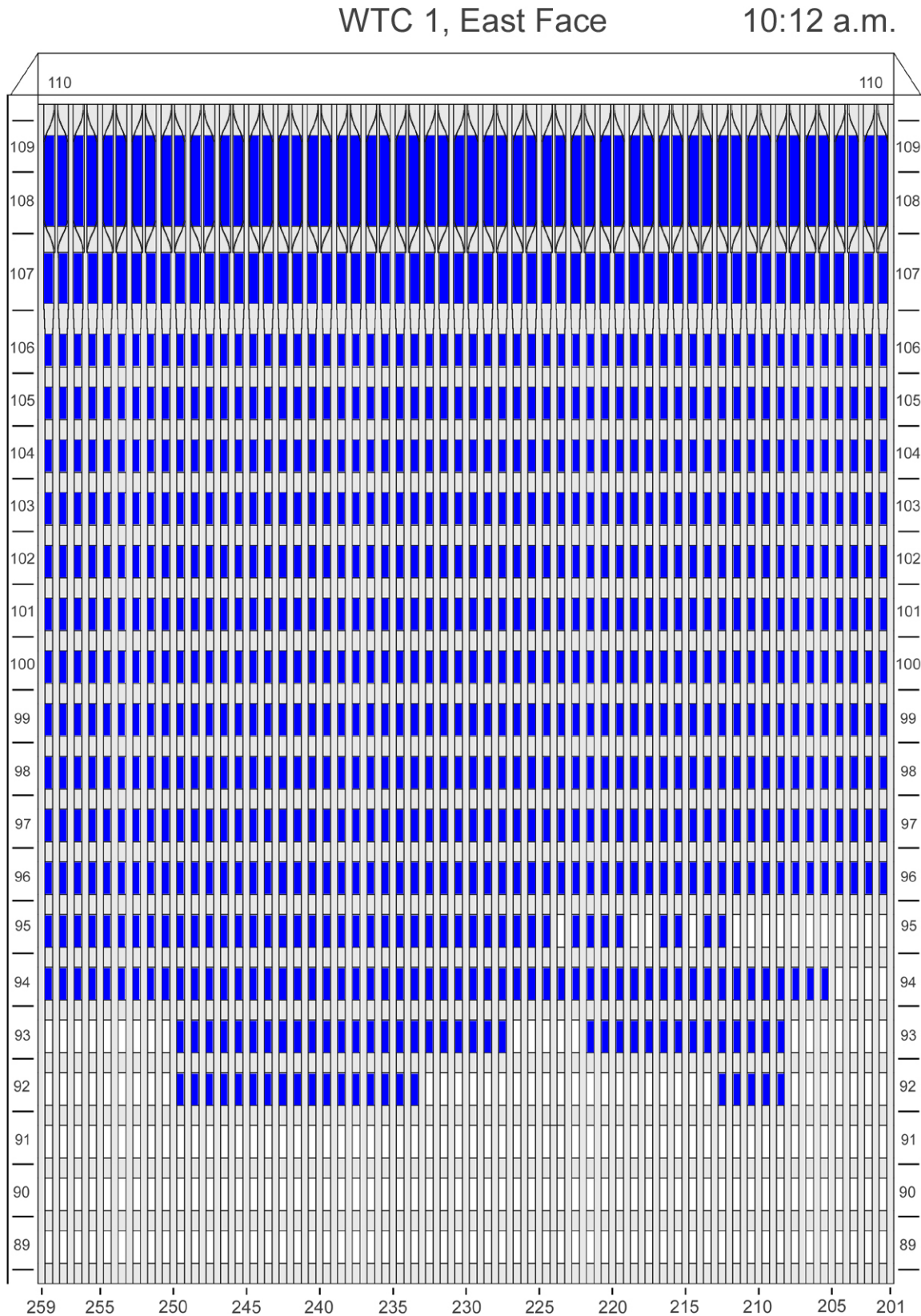


**Figure D-42. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:06 a.m. showing windows where smoke was observed and those that were hidden from view.**

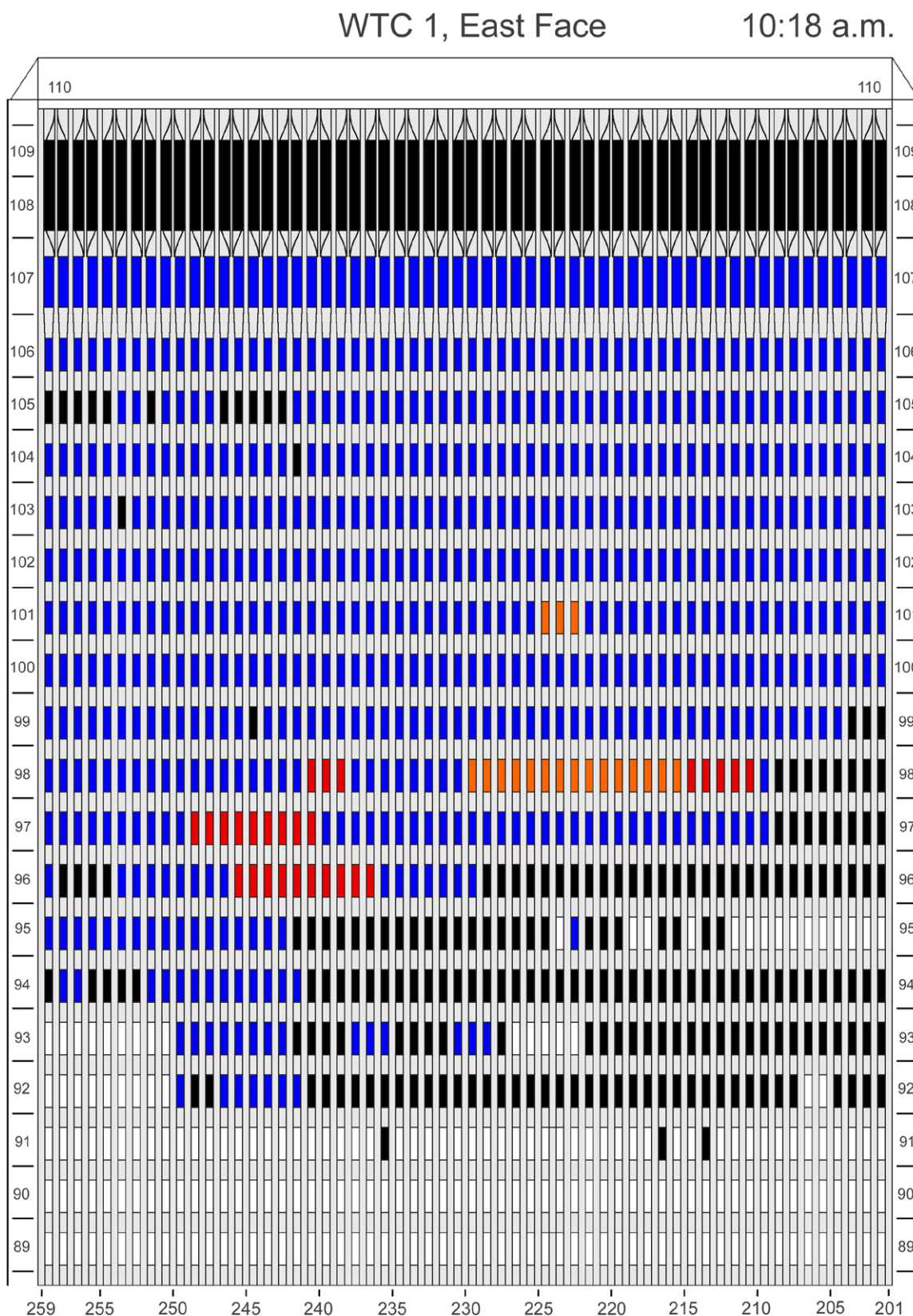


**Figure D-43. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:12 a.m. showing the condition of windows and locations of fires.**

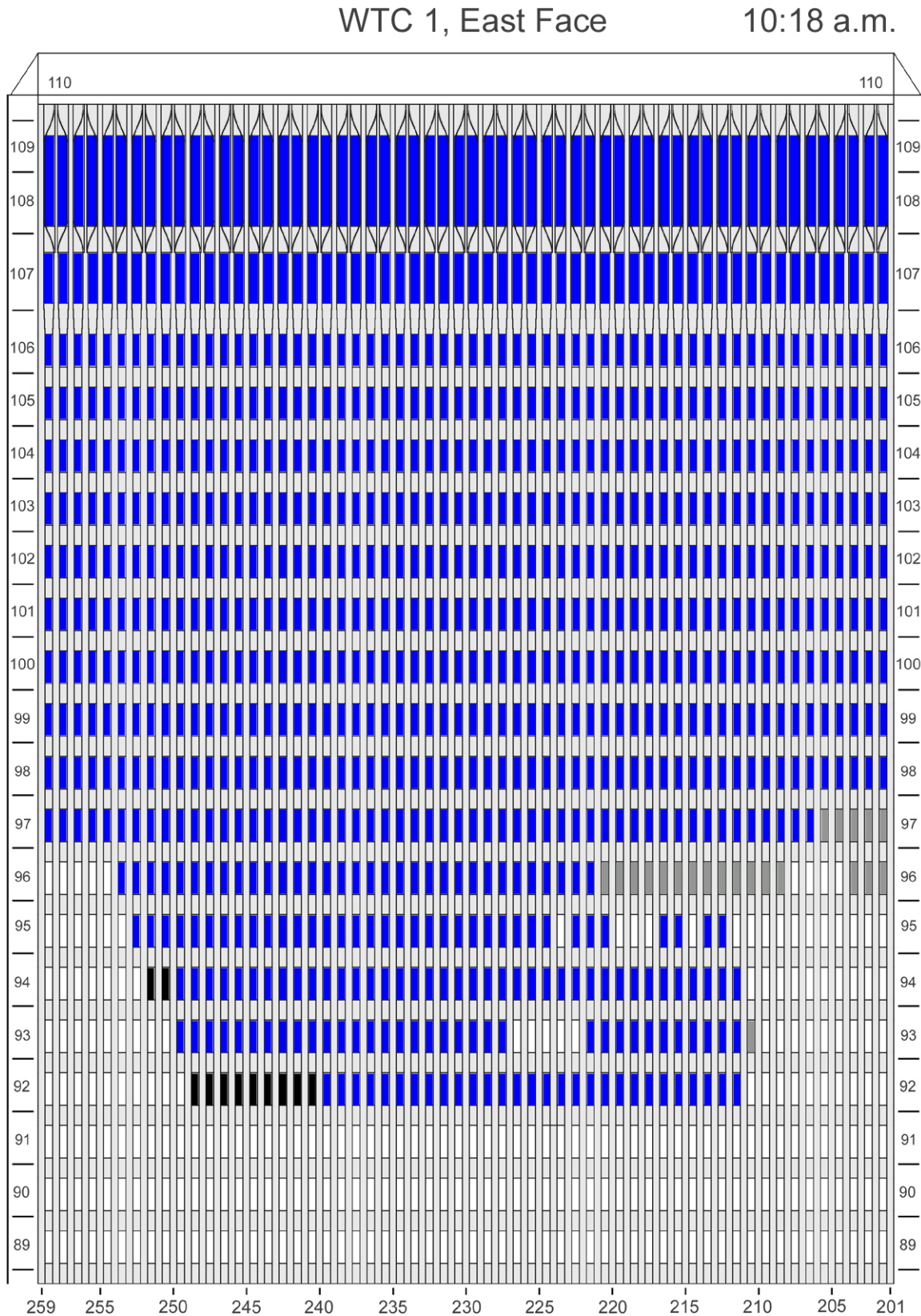




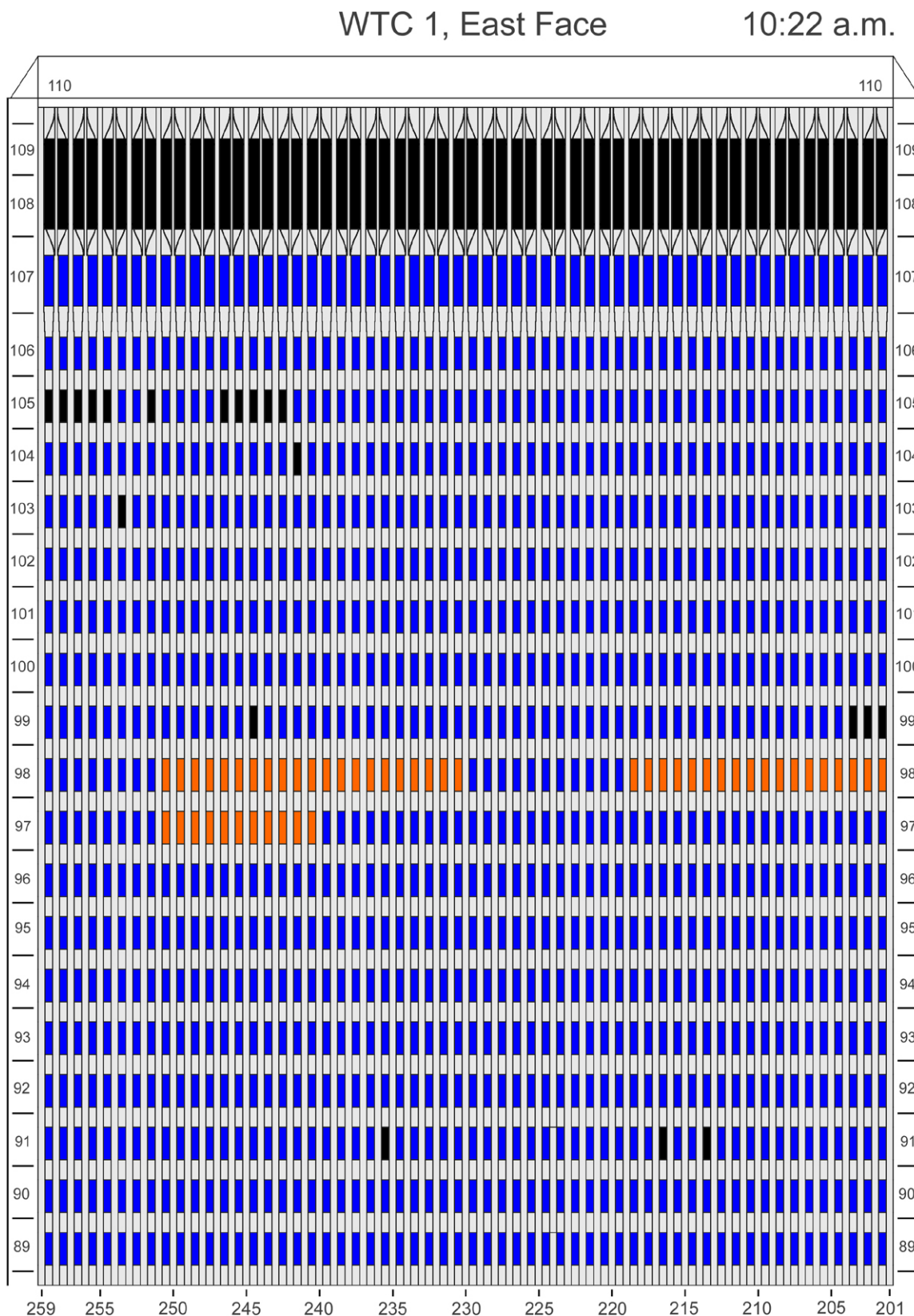
**Figure D-44. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:12 a.m. showing windows where smoke was observed and those that were hidden from view.**



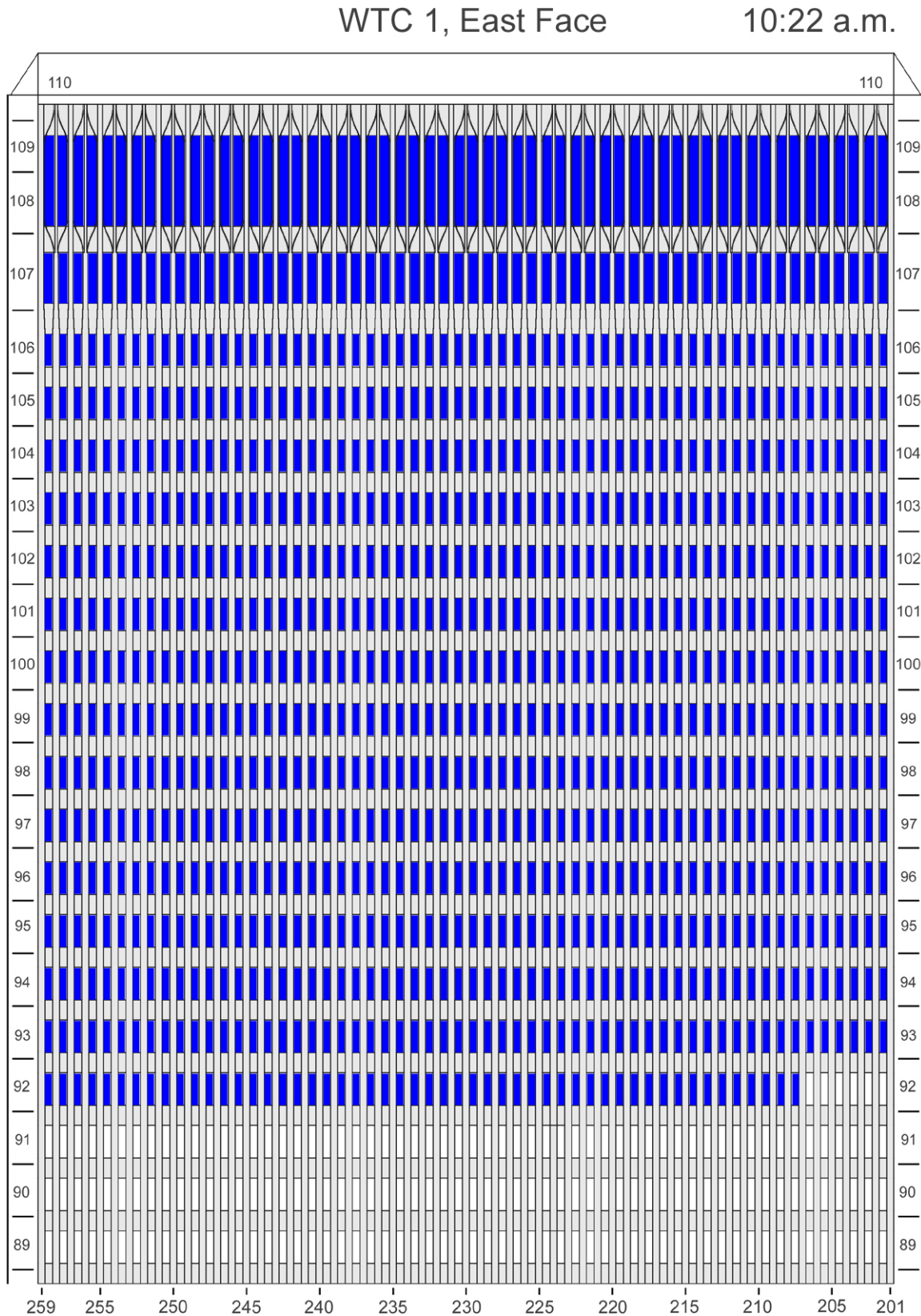
**Figure D-45. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:18 a.m. showing the condition of windows and locations of fires.**



**Figure D-46. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:18 a.m. showing windows where smoke was observed and those that were hidden from view.**

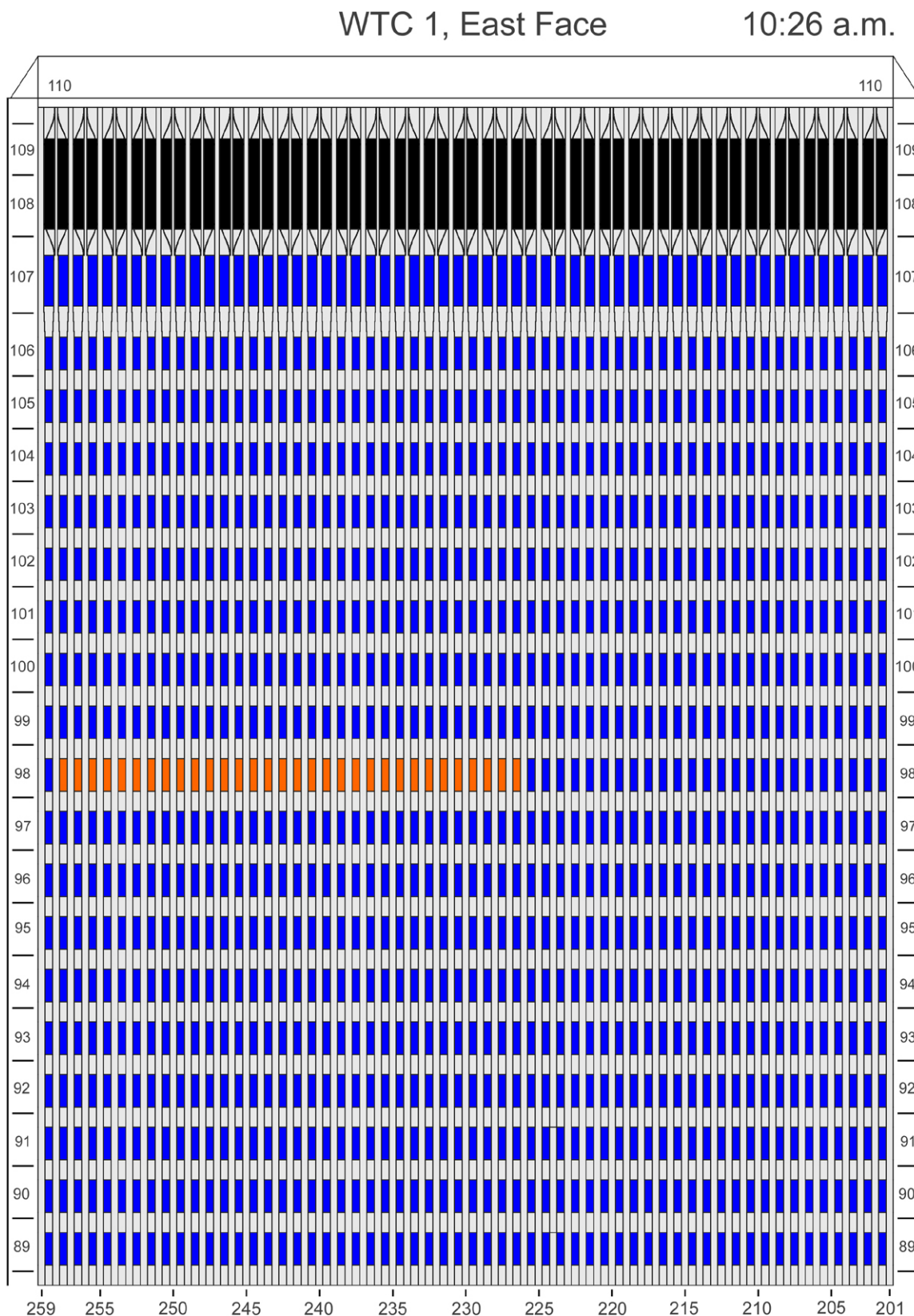


**Figure D-47. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:22 a.m. showing the condition of windows and locations of fires.**

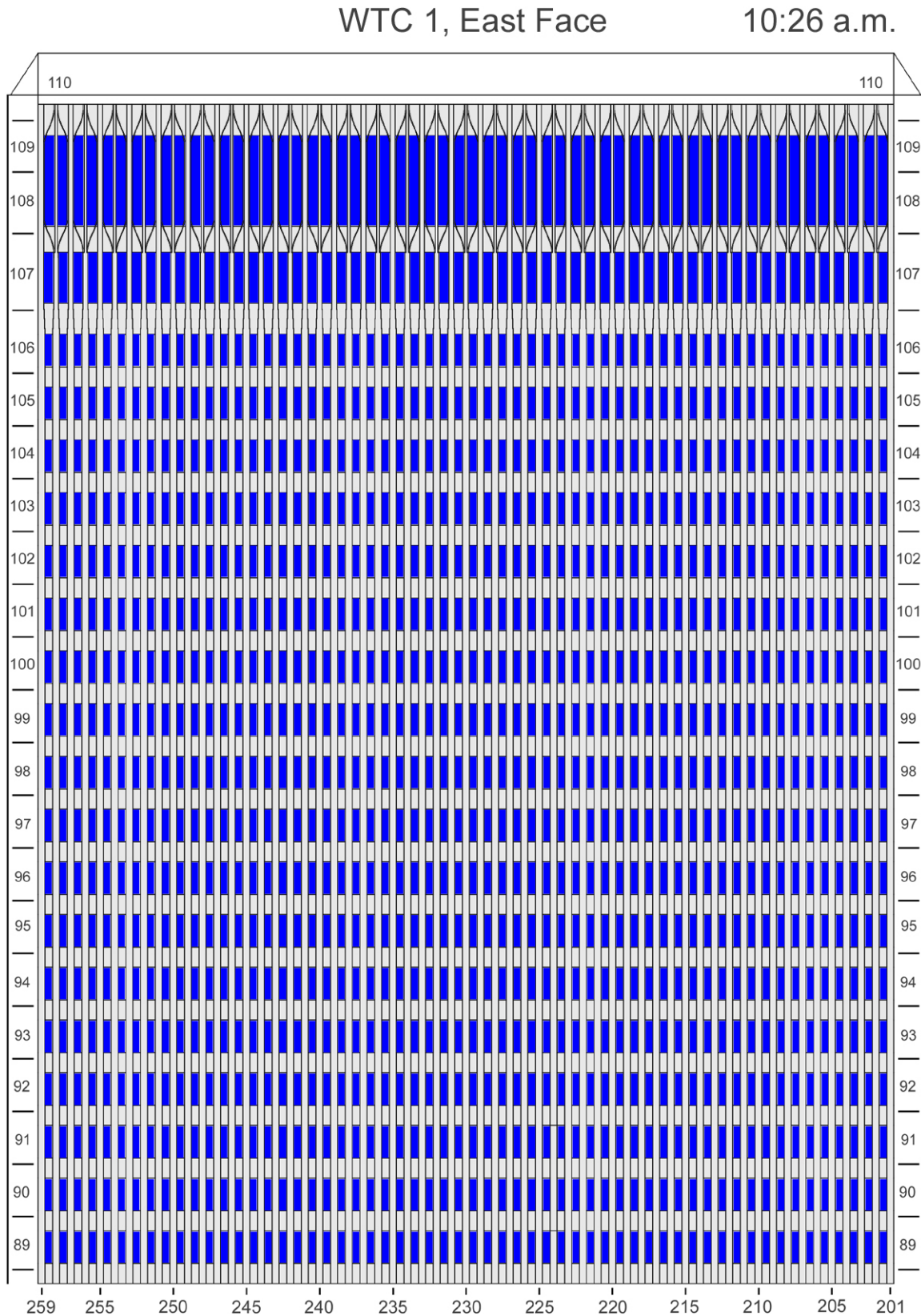


**Figure D- 48. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:22 a.m. showing windows where smoke was observed and those that were hidden from view.**

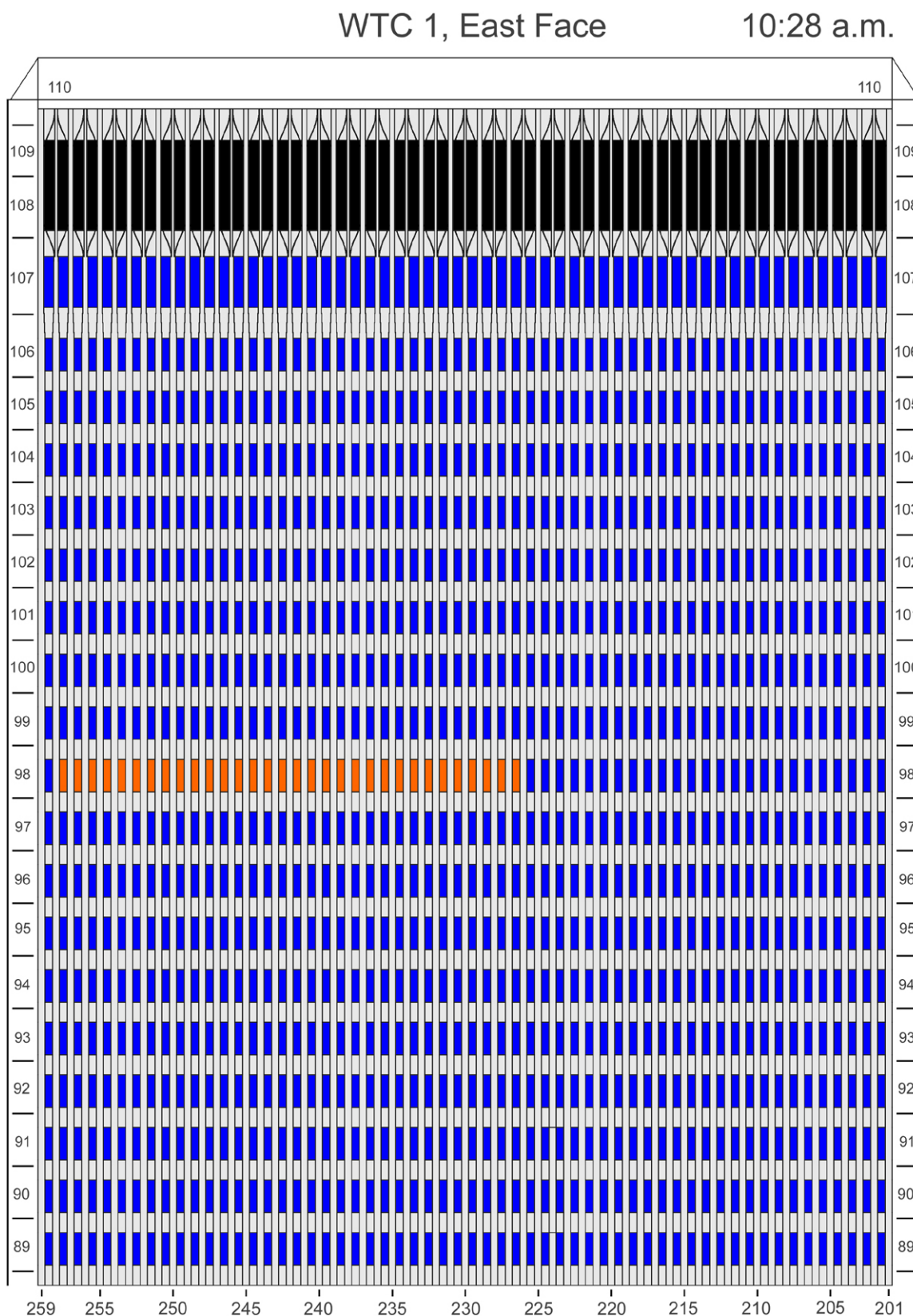




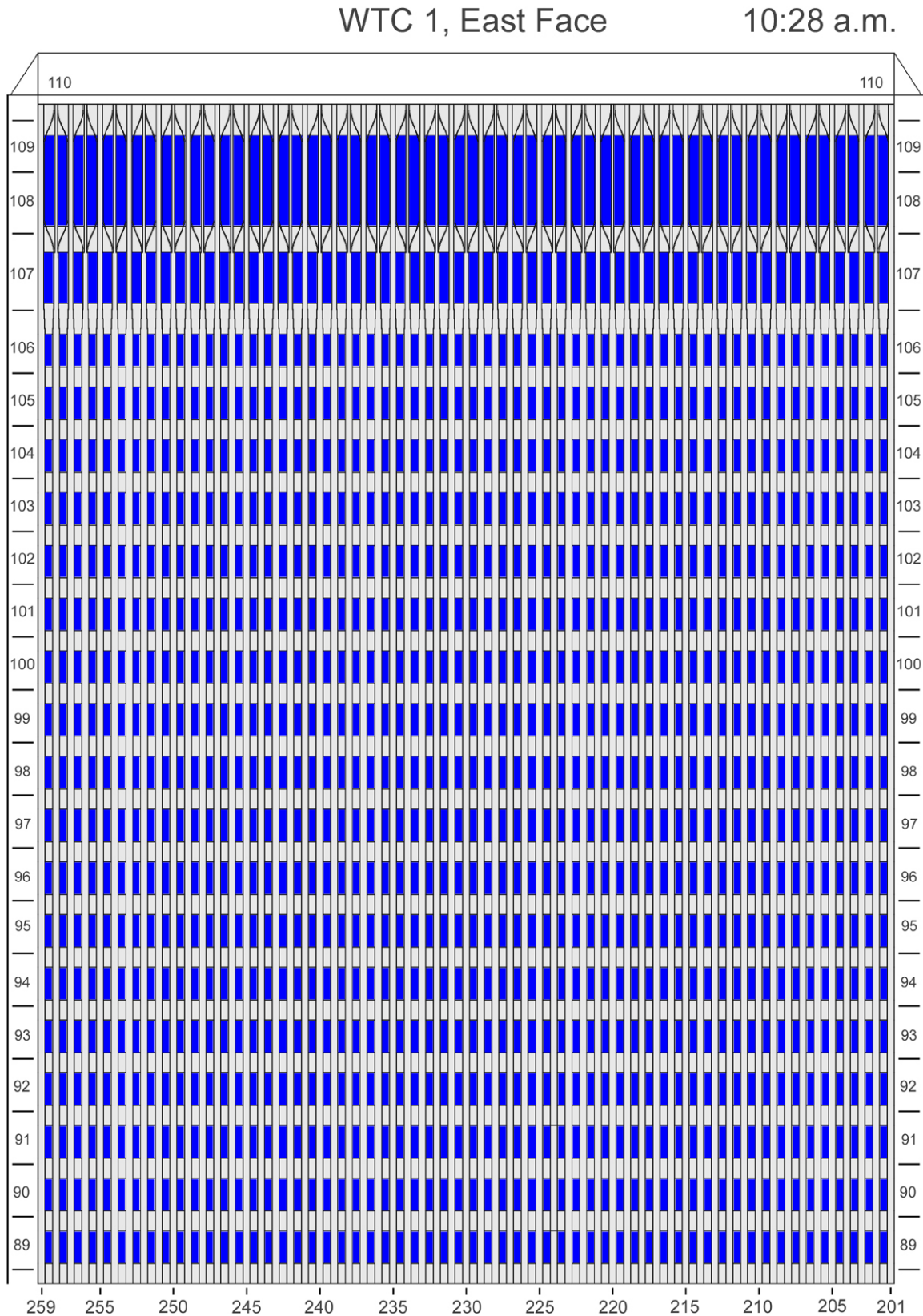
**Figure D-49. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:26 a.m. showing the condition of windows and locations of fires.**



**Figure D-50. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:26 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure D-51. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:28 a.m. showing the condition of windows and locations of fires.**



**Figure D-52. Diagram of the east face of WTC 1 for floors 89 to 110 at 10:28 a.m. showing windows where smoke was observed and those that were hidden from view.**











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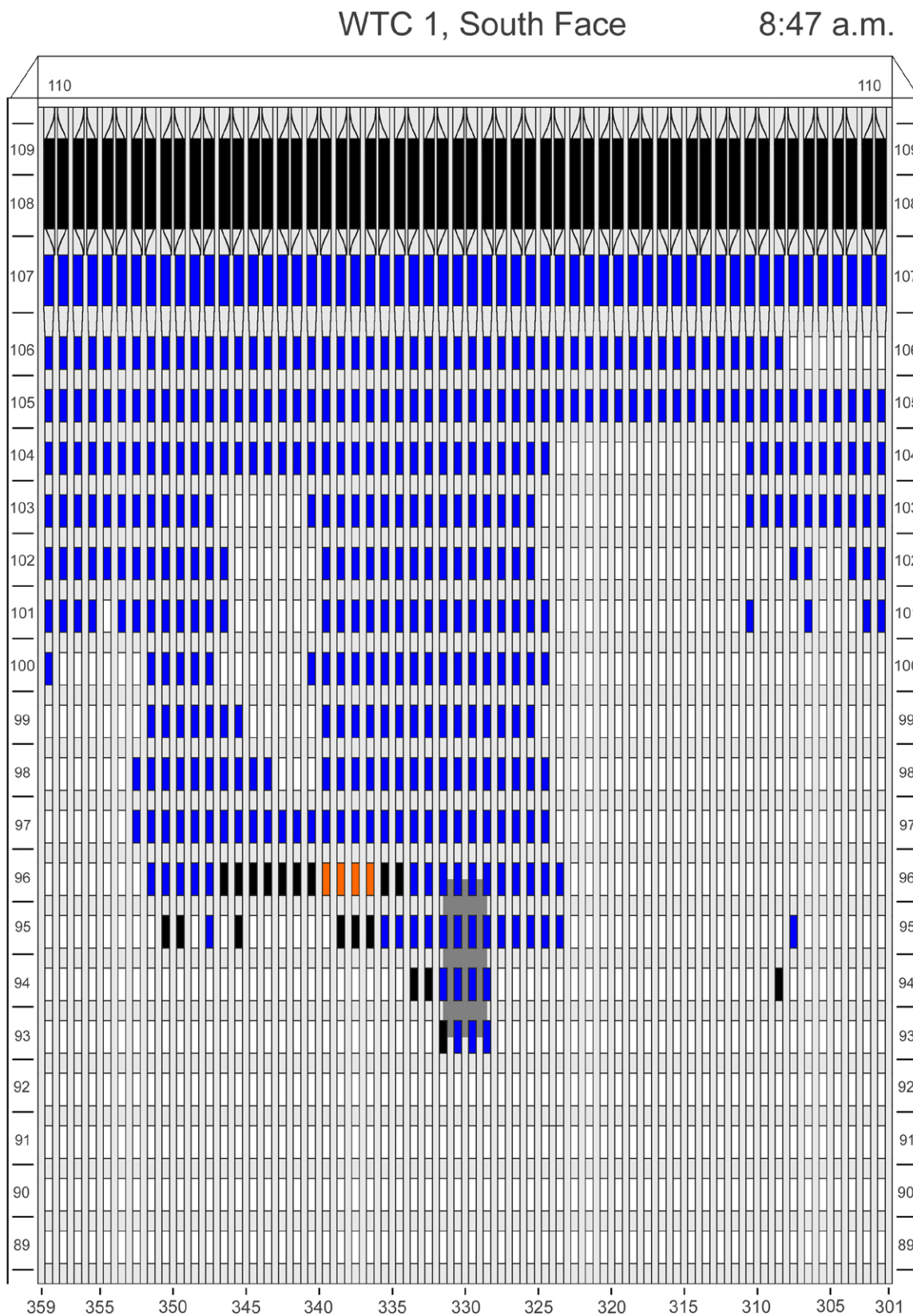


## Appendix E

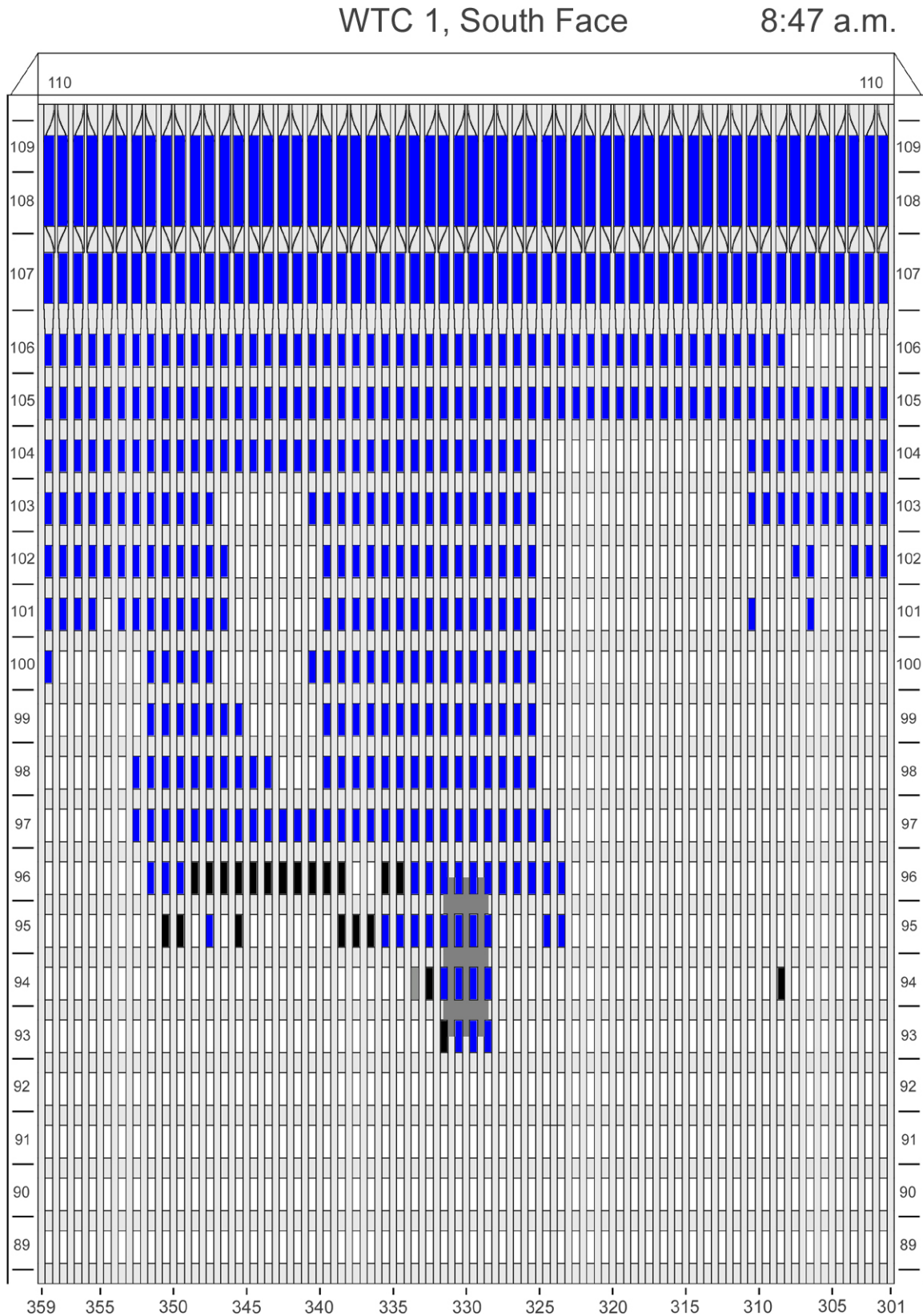
# WTC 1 SOUTH FACE COMBINED FIRE AND WINDOW CONDITION AND WINDOW SMOKE CONDITION

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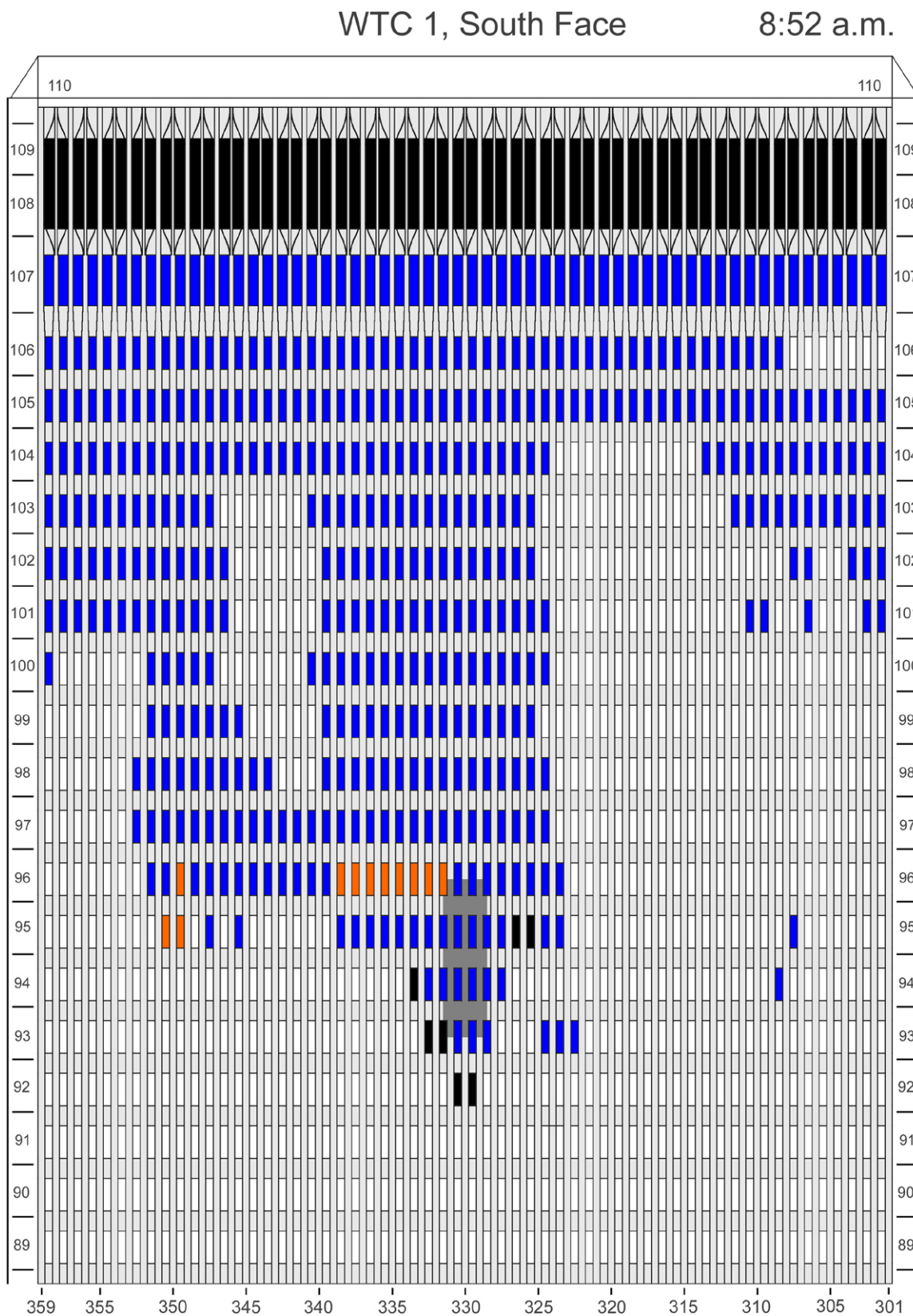
This appendix provides visual representations of the data contained in data sheets describing observations of fire, smoke, and window condition on a window-by-window basis as a function of time for the south face of WTC 1. The data for window condition and fire observations are combined into single representations, with the data for fire taking precedence. Observations are represented using the key provided in Figure 5-1 as follows:  - window glass in place,  - window open,  - spot fire,  - fire visible inside,  - external flaming, and  - not visible. The data for smoke are shown in separate figures using the key from Figure 5-1 as follows:  - no smoke visible,  - light smoke,  - heavy smoke, and  - not visible. For a given time, the window condition and fire data are shown first.



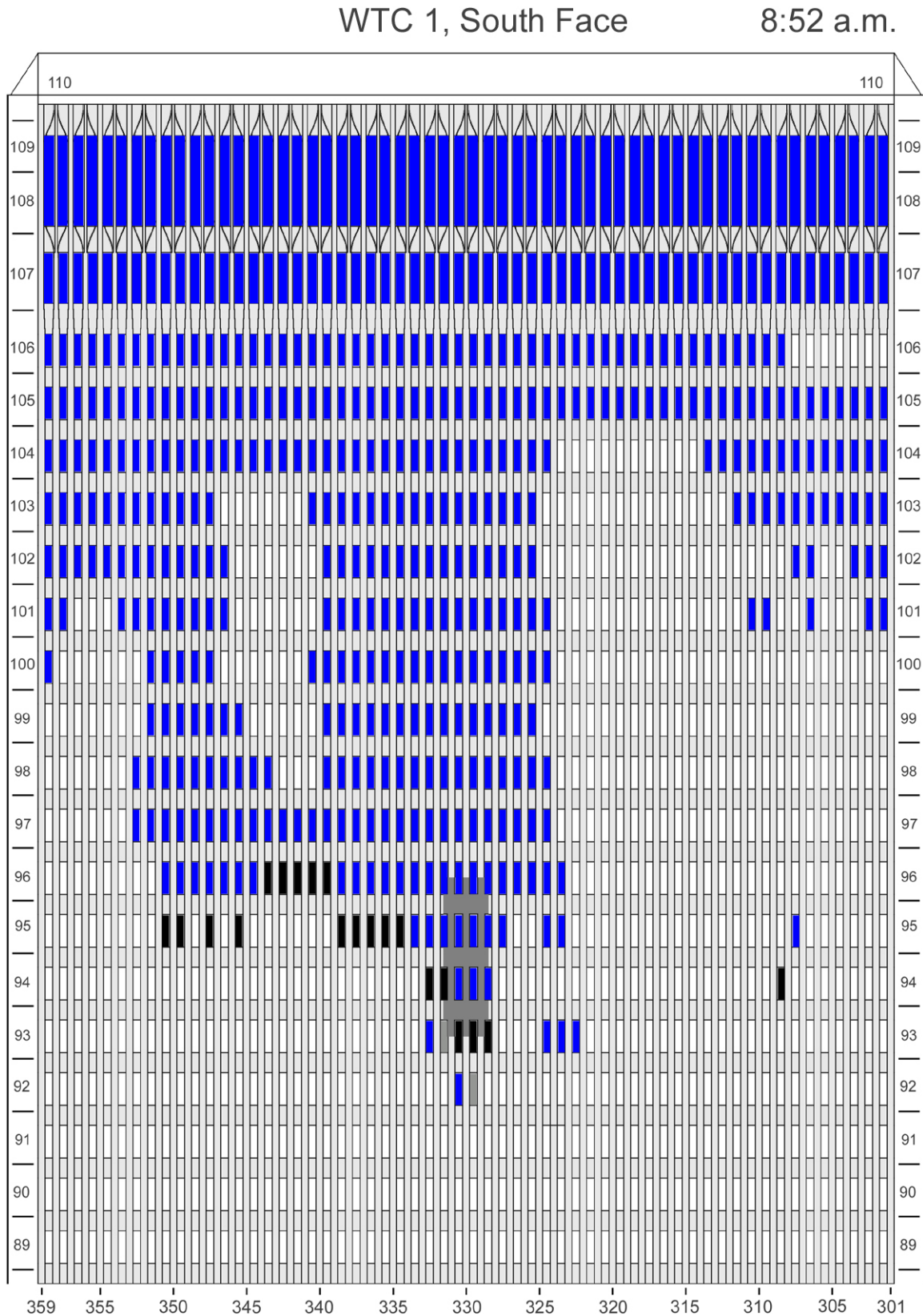
**Figure E-1. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:47 a.m. showing the condition of windows and locations of fires.**



**Figure E-2. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:47 a.m. showing windows where smoke was observed and those that were hidden from view.**

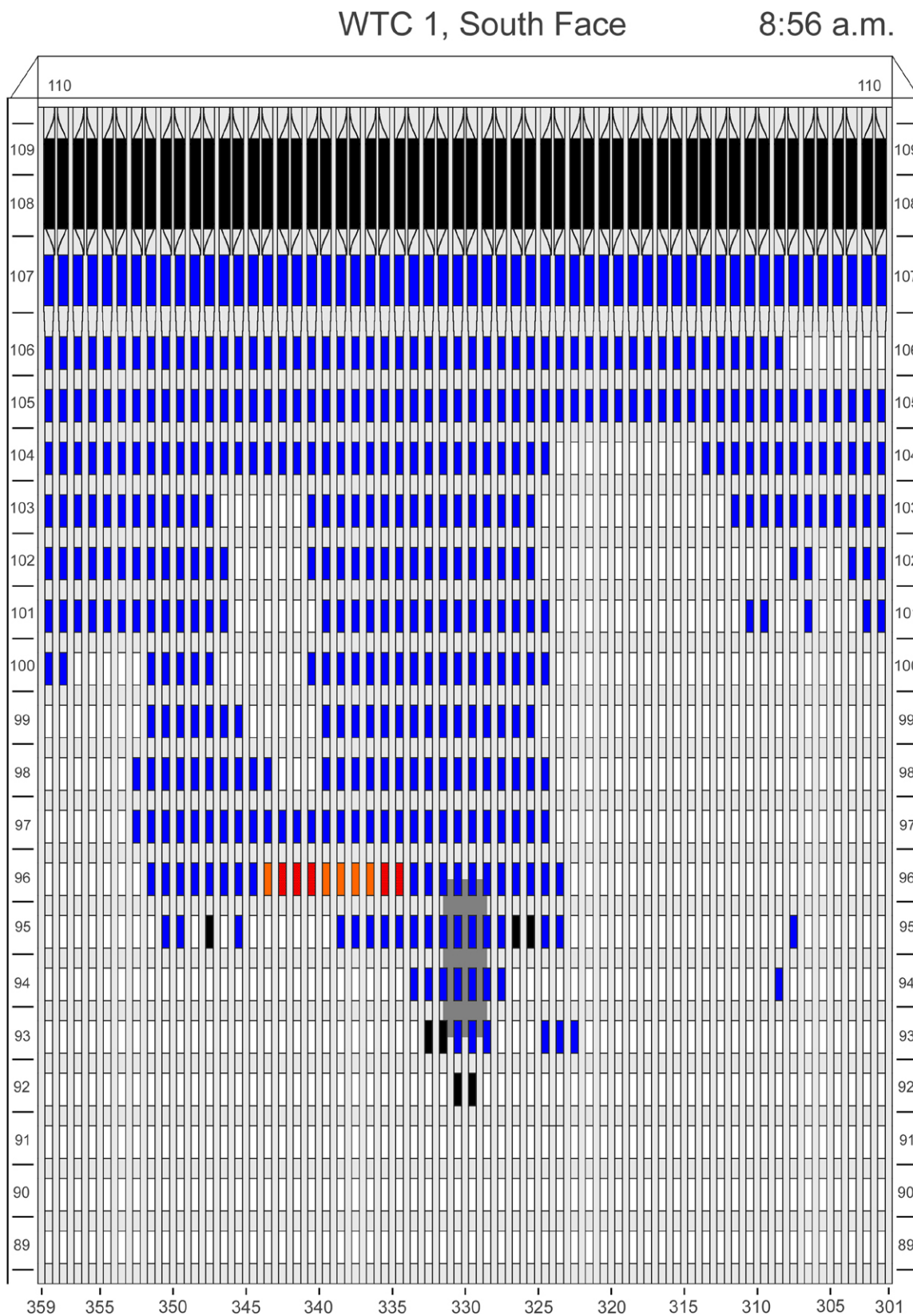


**Figure E-3. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:52 a.m. showing the condition of windows and locations of fires.**

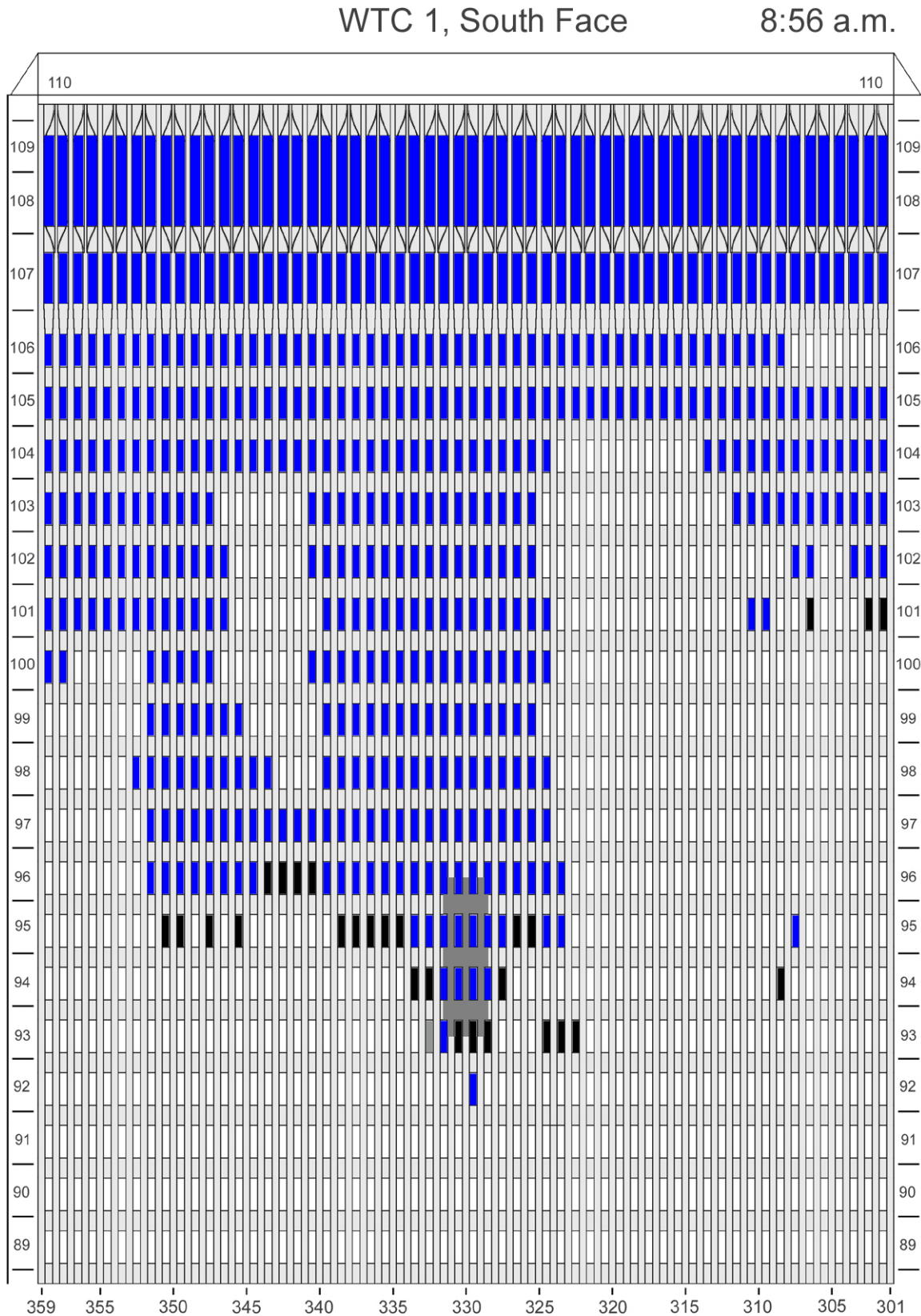


**Figure E-4. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:52 a.m. showing windows where smoke was observed and those that were hidden from view.**

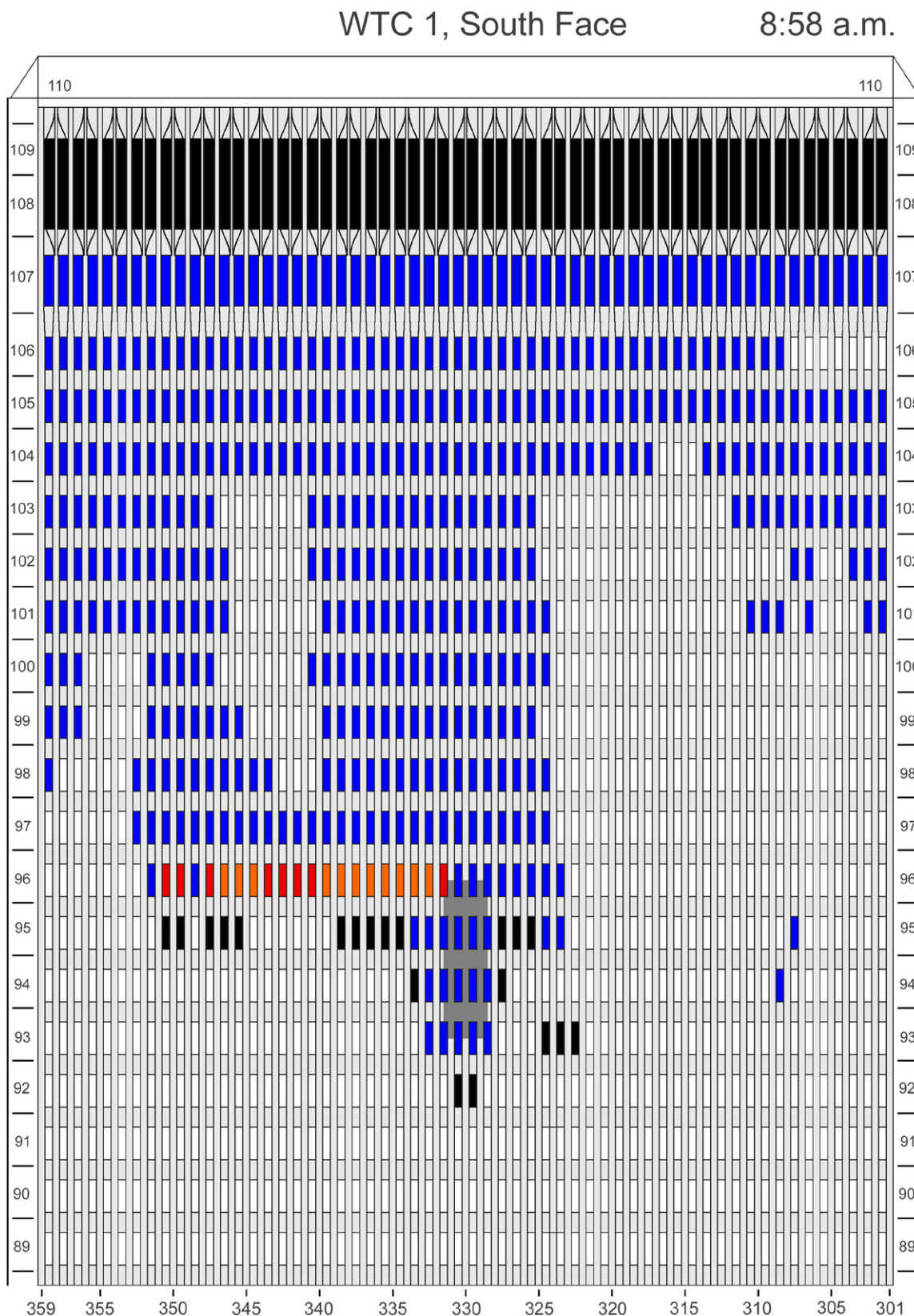




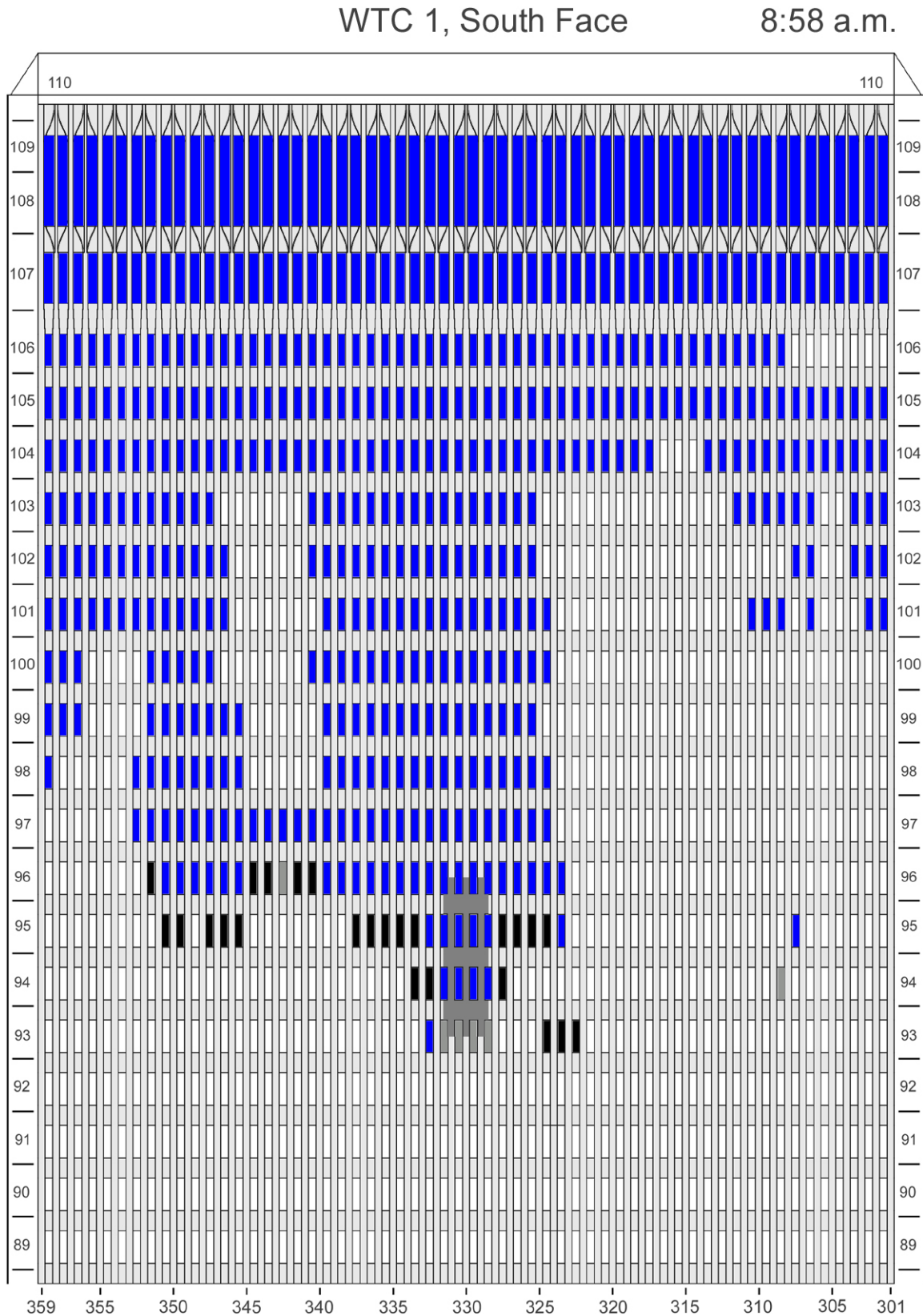
**Figure E-5. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:56 a.m. showing the condition of windows and locations of fires.**



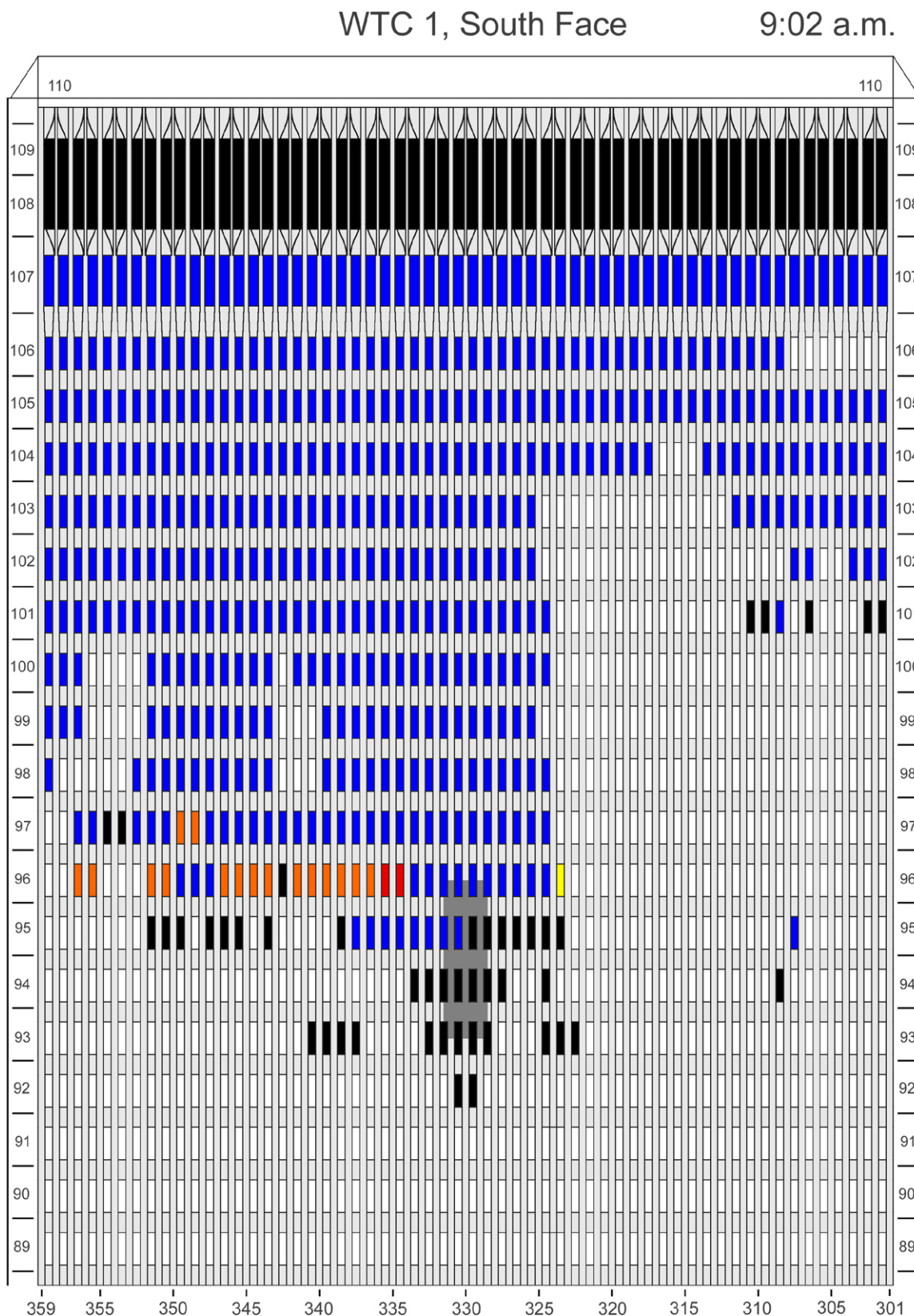
**Figure E-6. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:56 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure E-7. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:58 a.m. showing the condition of windows and locations of fires.**

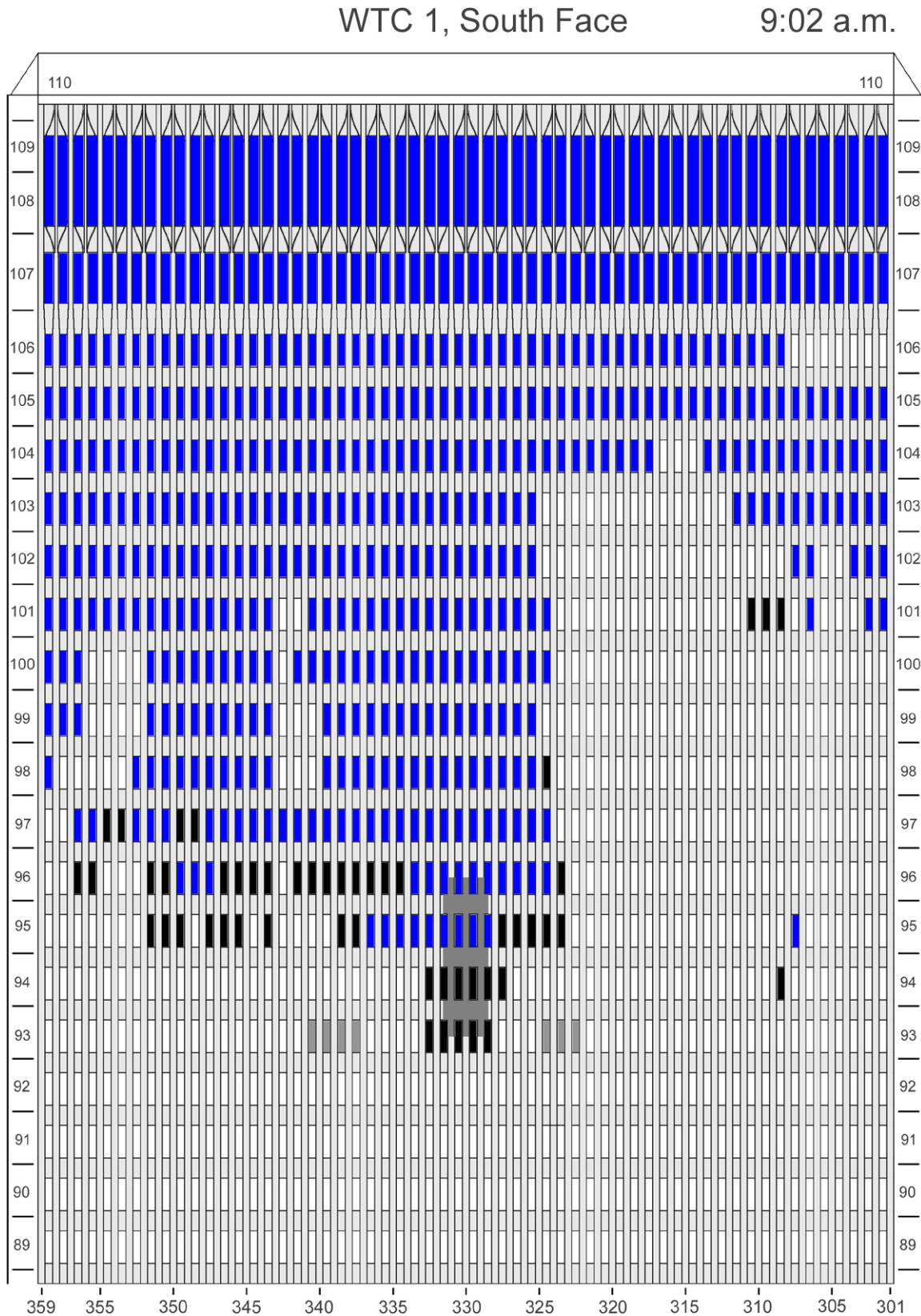


**Figure E-8. Diagram of the south face of WTC 1 for floors 89 to 110 at 8:58 a.m. showing windows where smoke was observed and those that were hidden from view.**

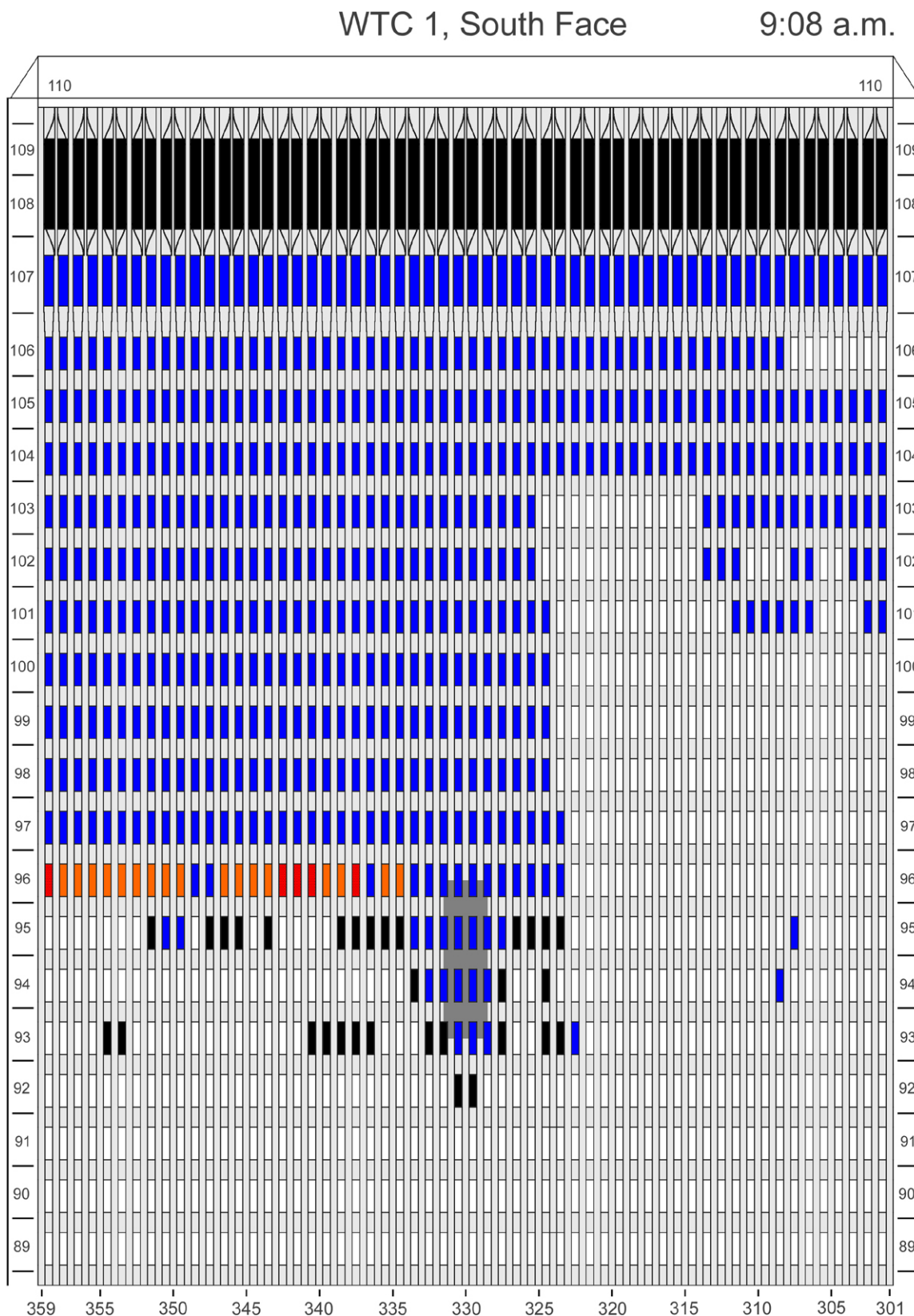


**Figure E-9. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:02 a.m. showing the condition of windows and locations of fires.**

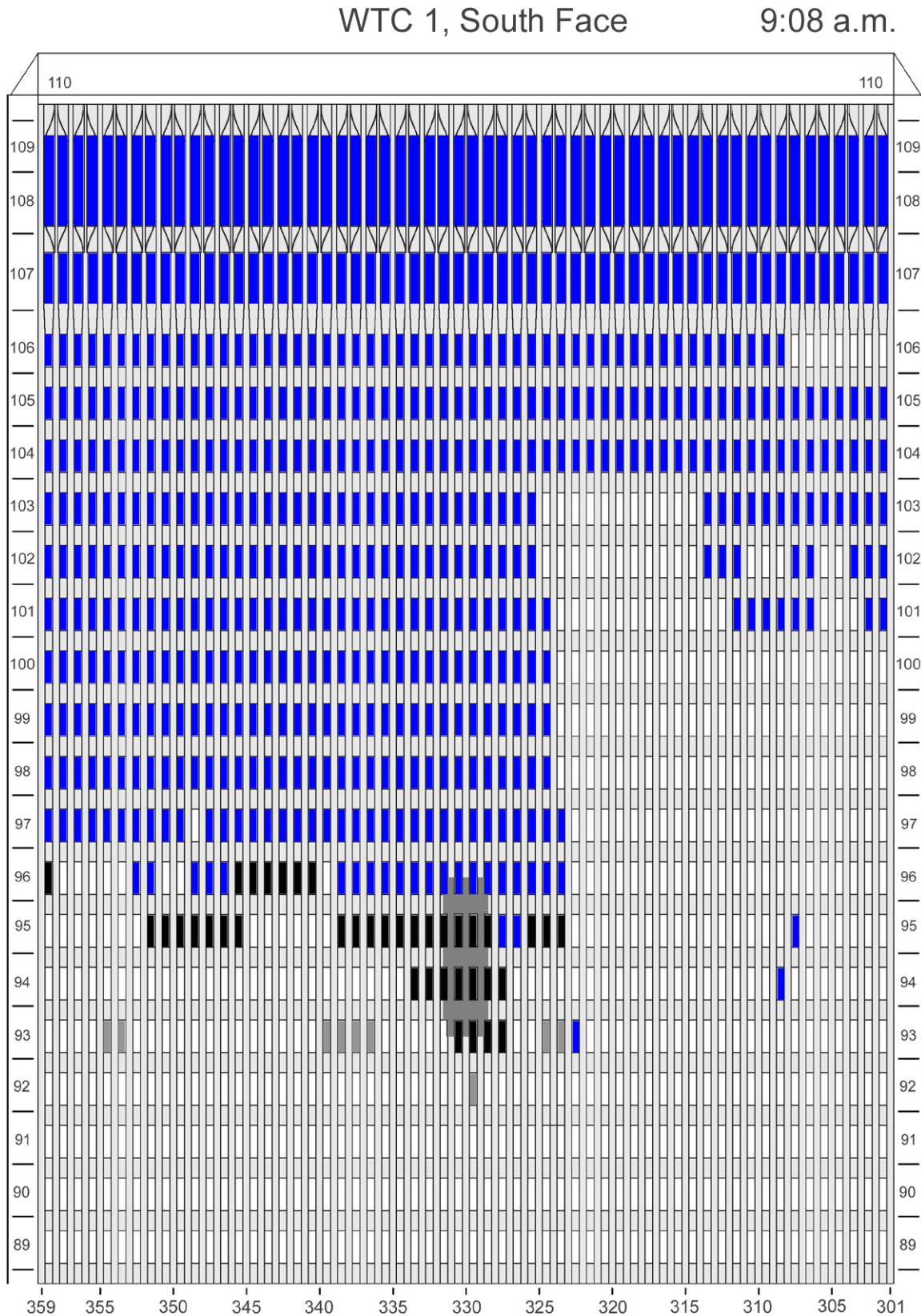




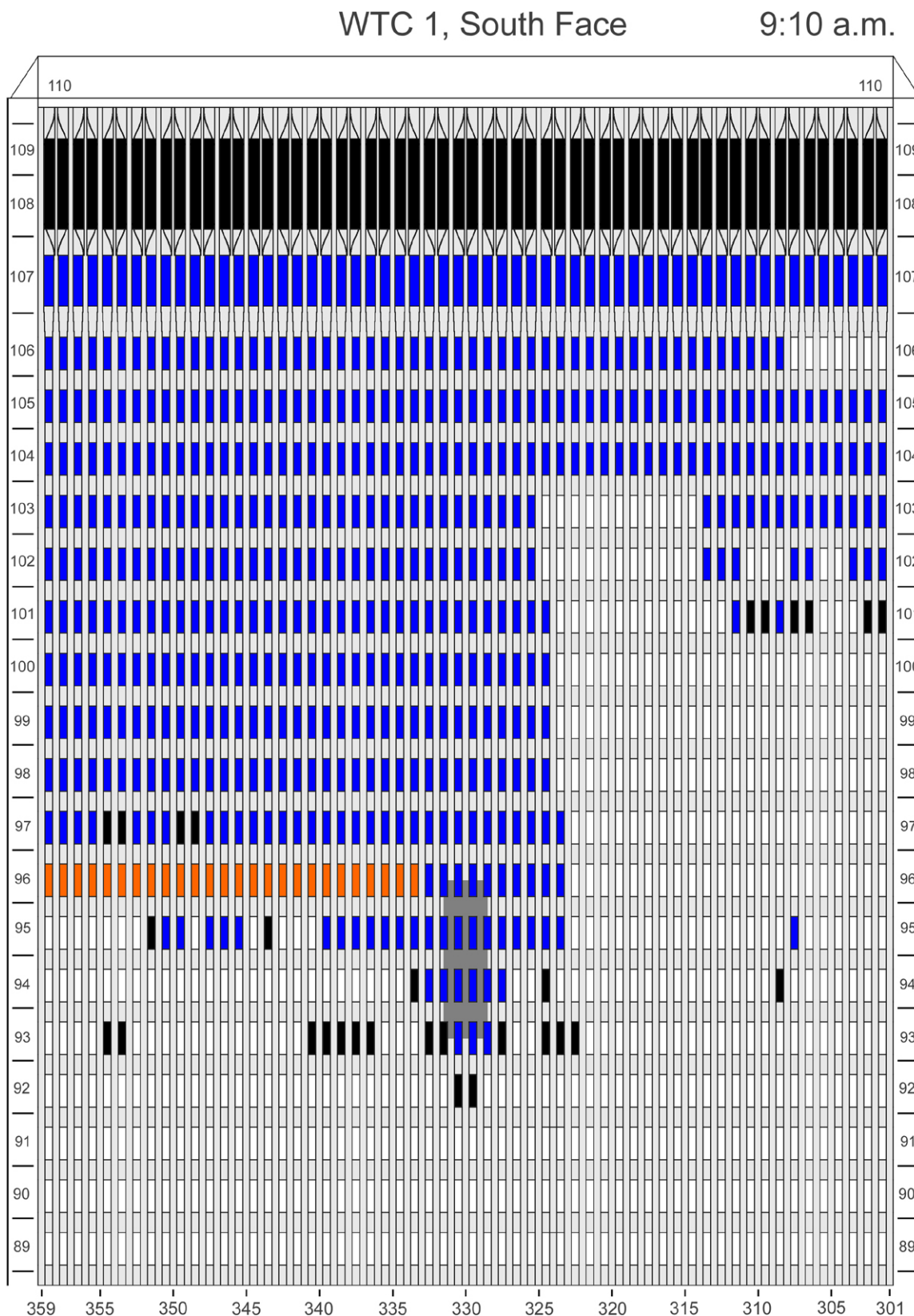
**Figure E-10. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:02 a.m. showing windows where smoke was observed and those that were hidden from view.**



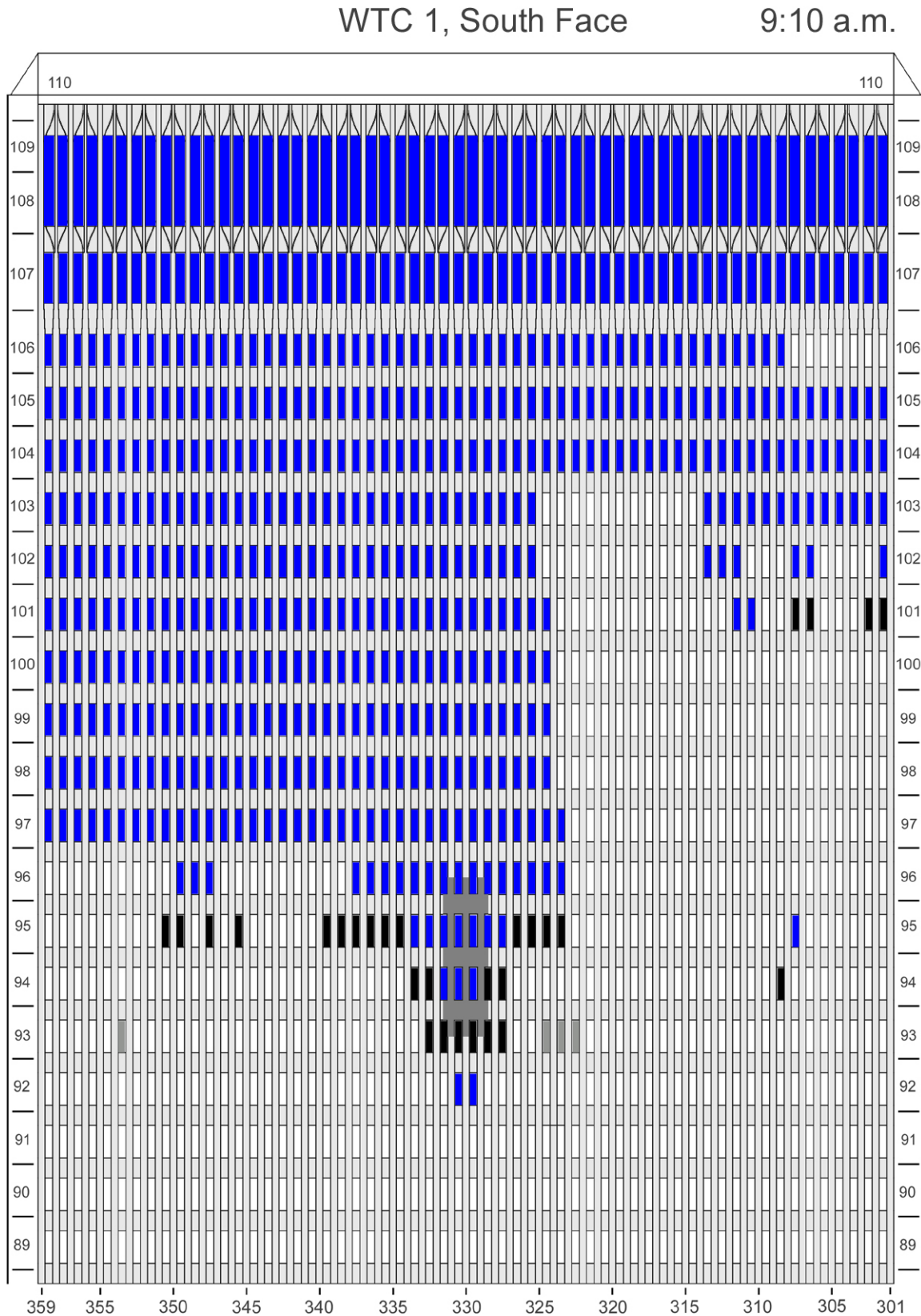
**Figure E-11. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:08 a.m. showing the condition of windows and locations of fires.**



**Figure E-12. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:08 a.m. showing windows where smoke was observed and those that were hidden from view.**

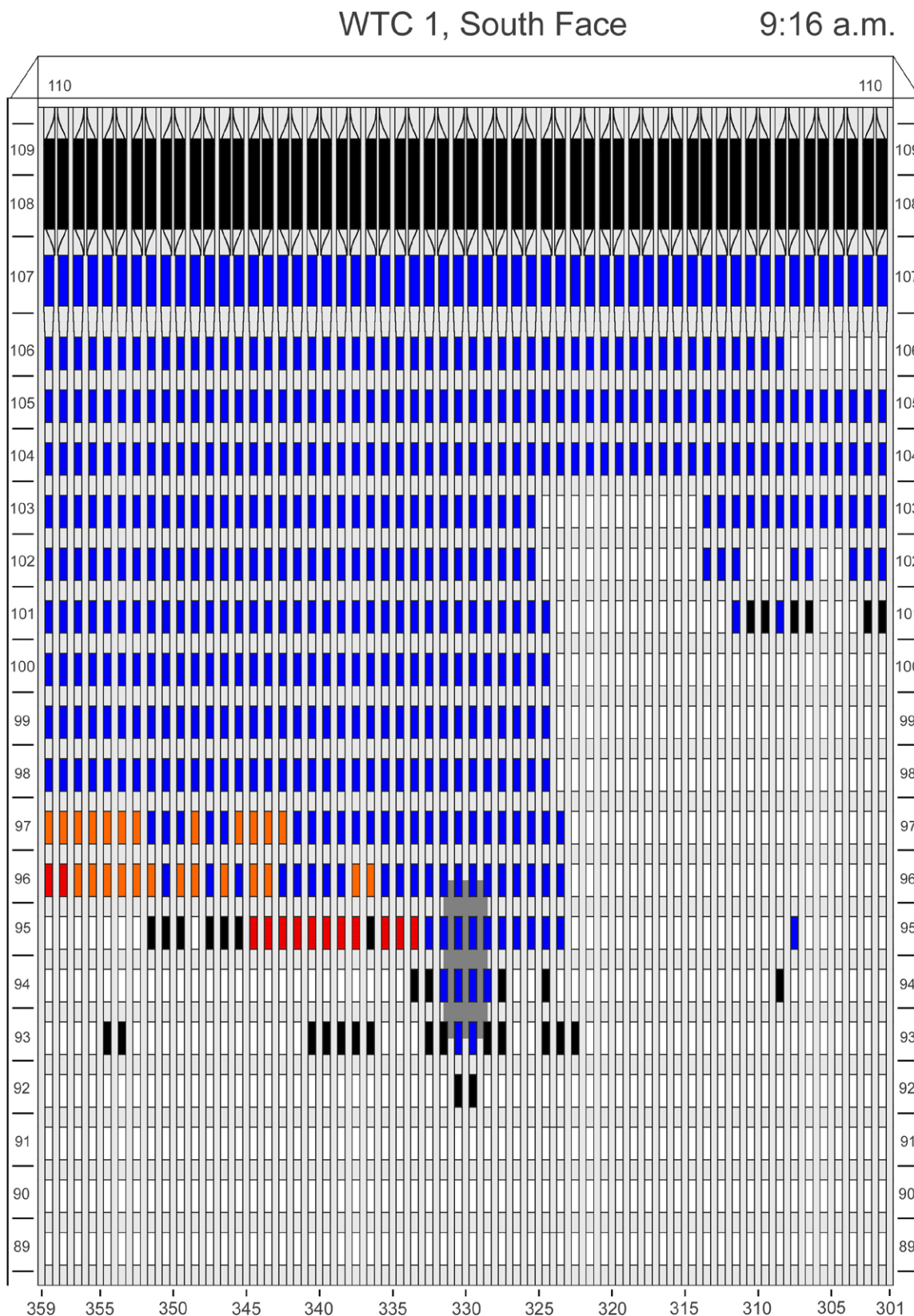


**Figure E-13. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:10 a.m. showing the condition of windows and locations of fires.**

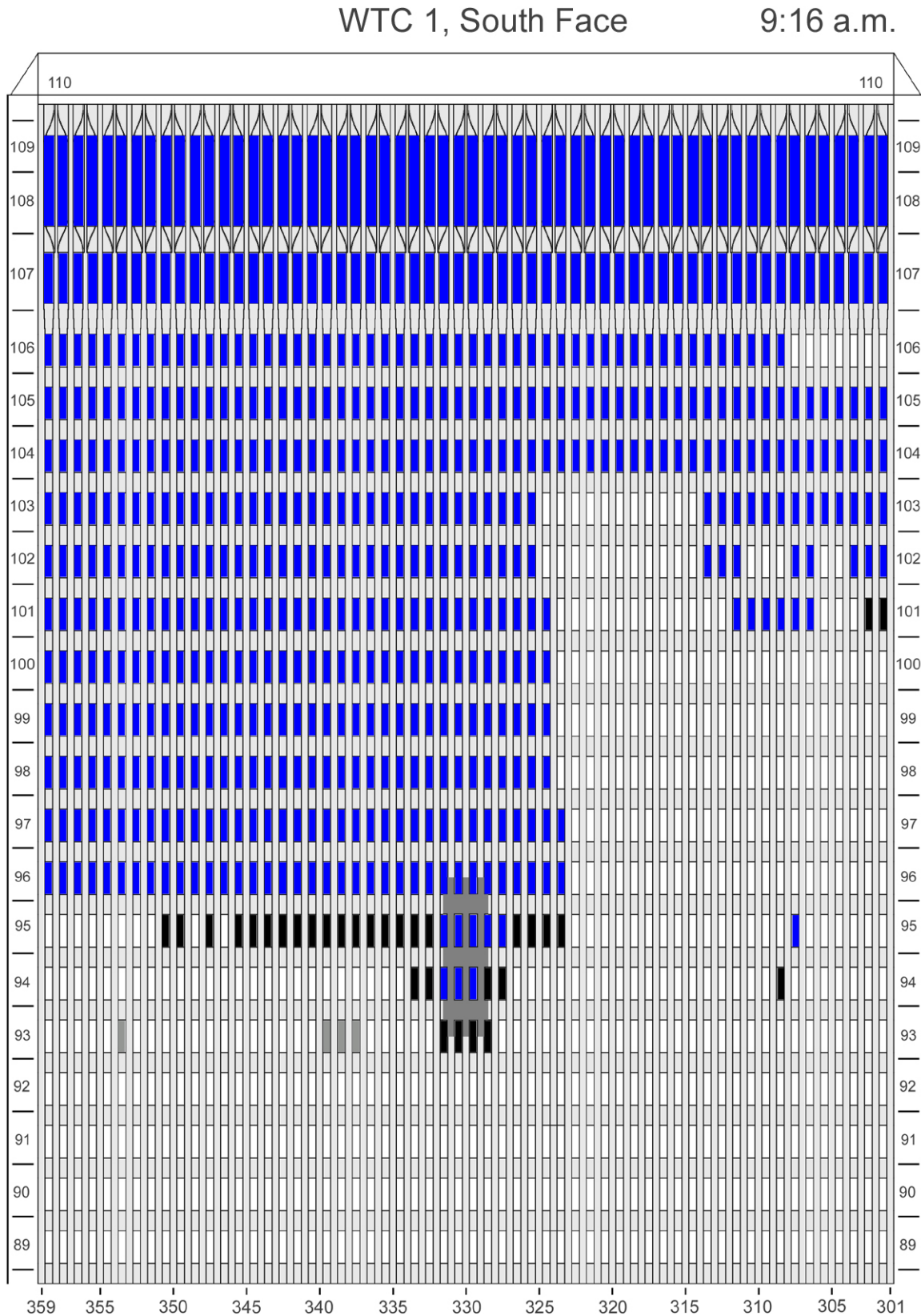


**Figure E-14. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:10 a.m. showing windows where smoke was observed and those that were hidden from view.**

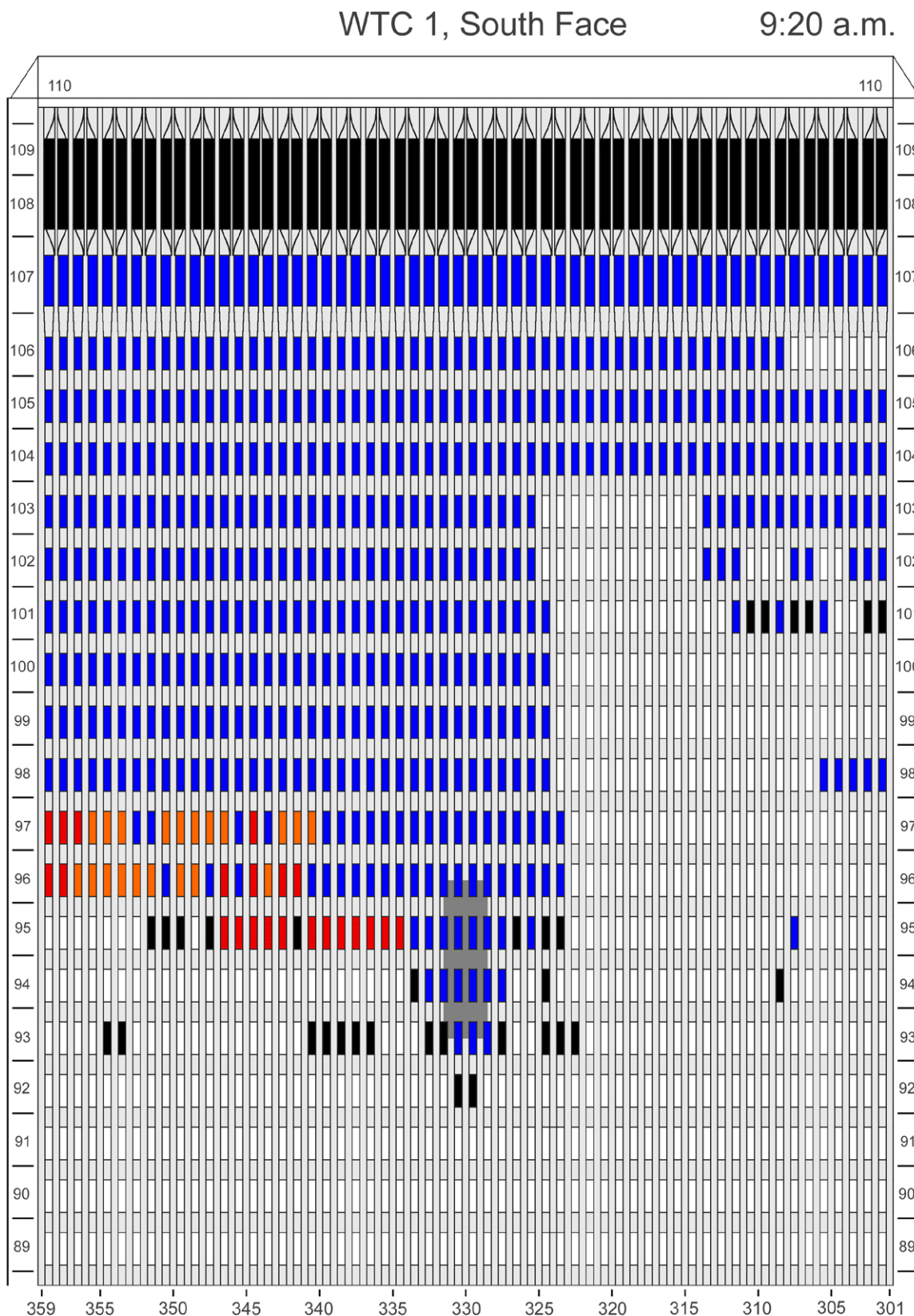




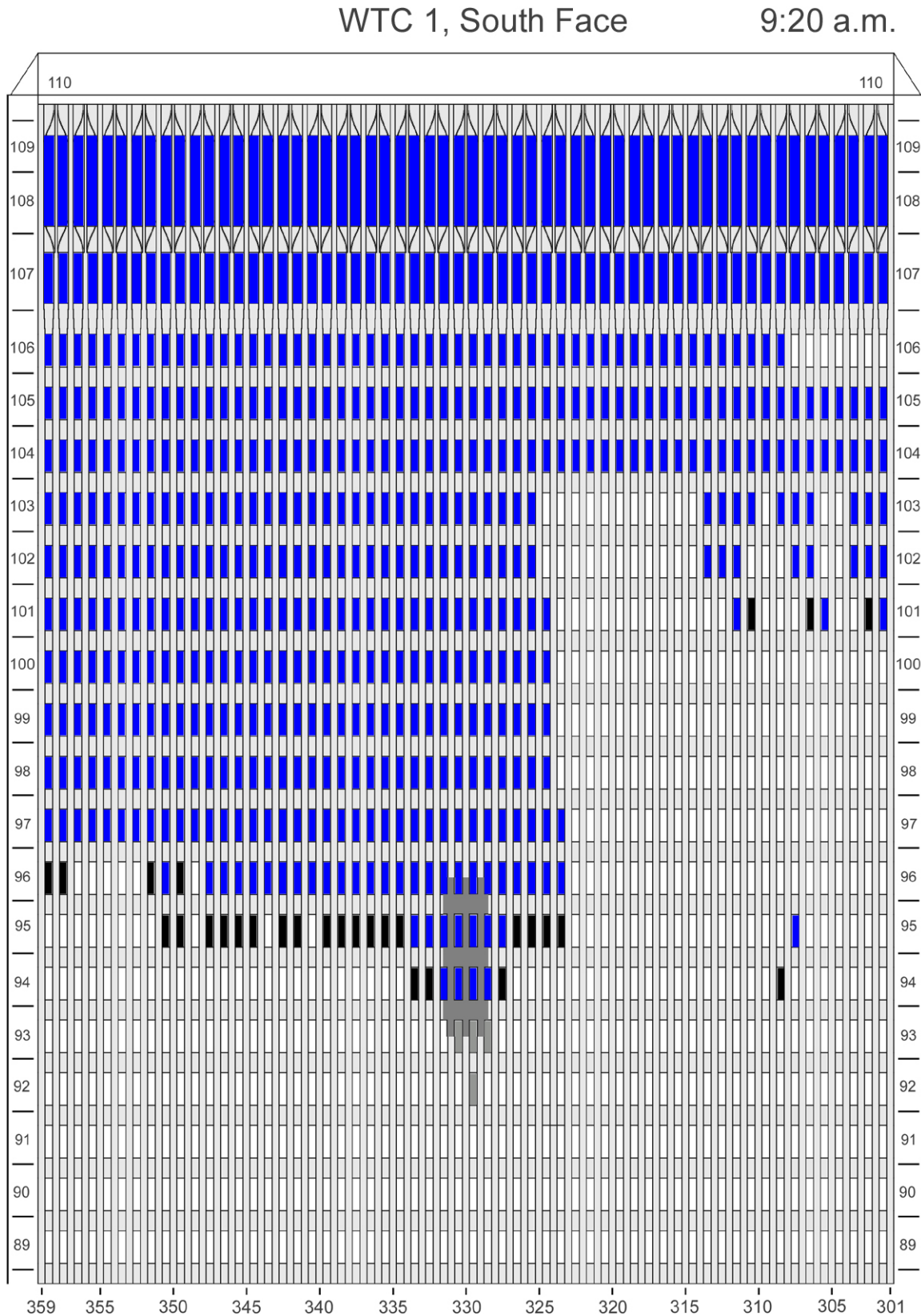
**Figure E-15. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:16 a.m. showing the condition of windows and locations of fires.**



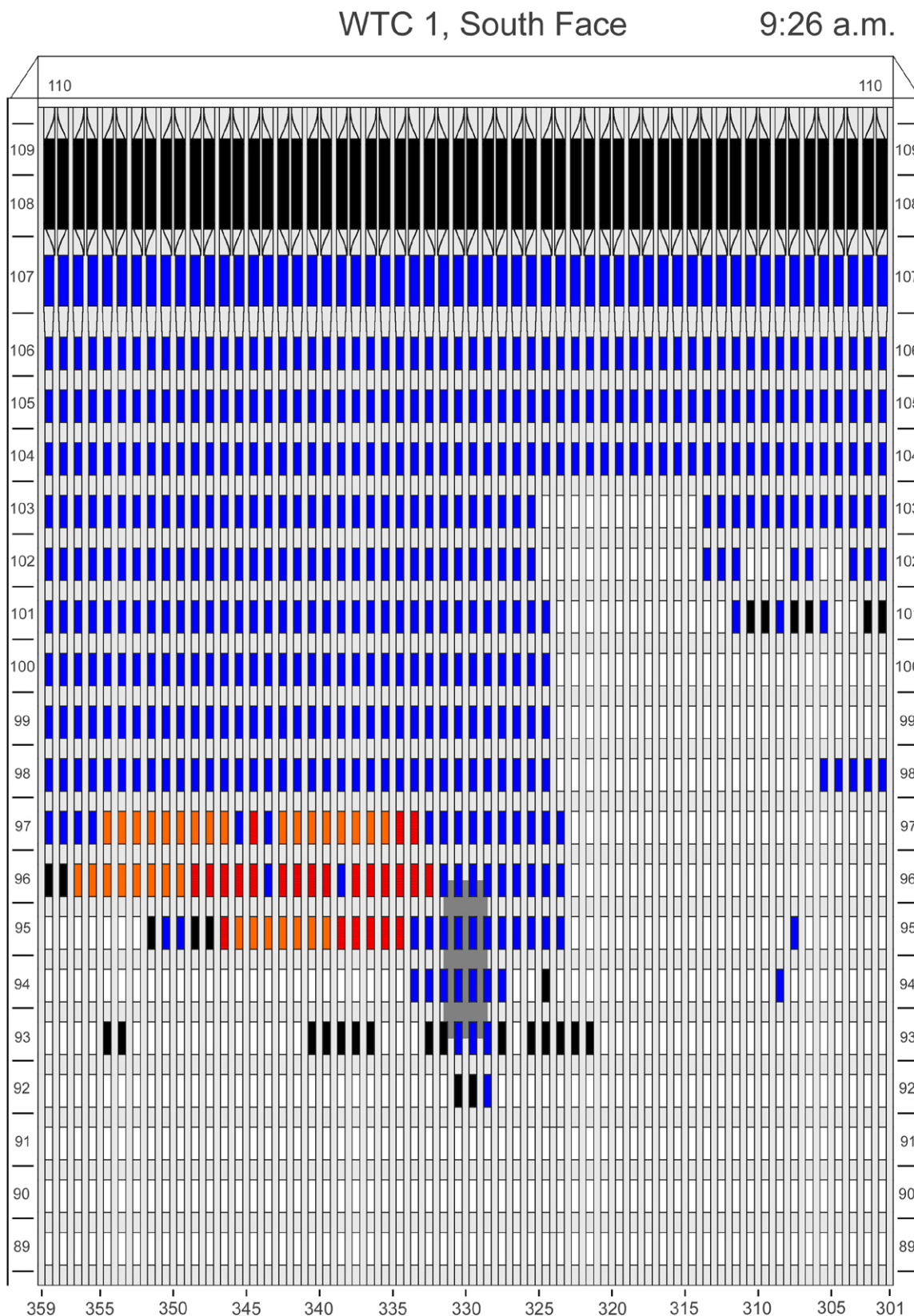
**Figure E-16. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:16 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure E-17. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:20 a.m. showing the condition of windows and locations of fires.**

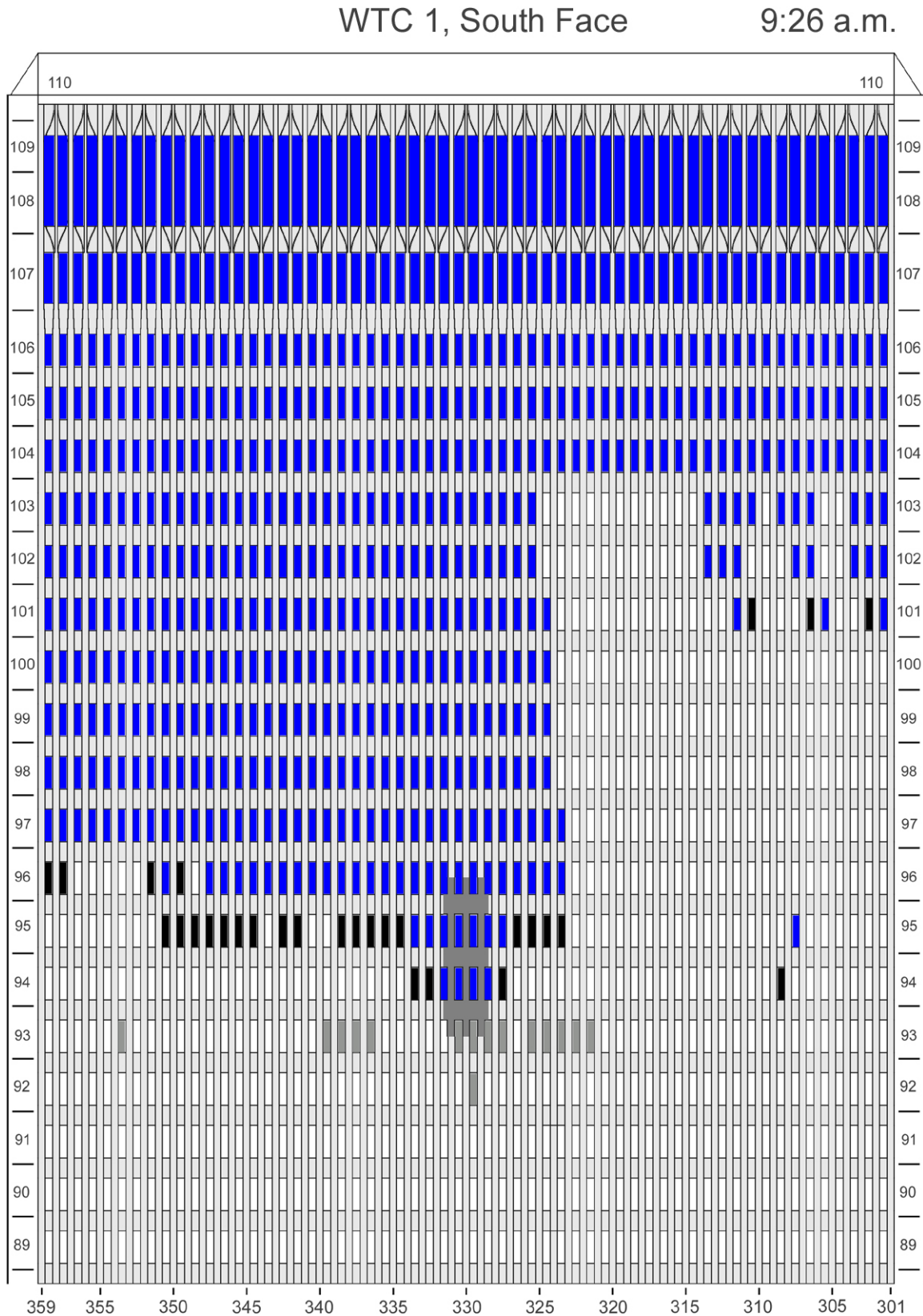


**Figure E-18. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:20 a.m. showing windows where smoke was observed and those that were hidden from view.**

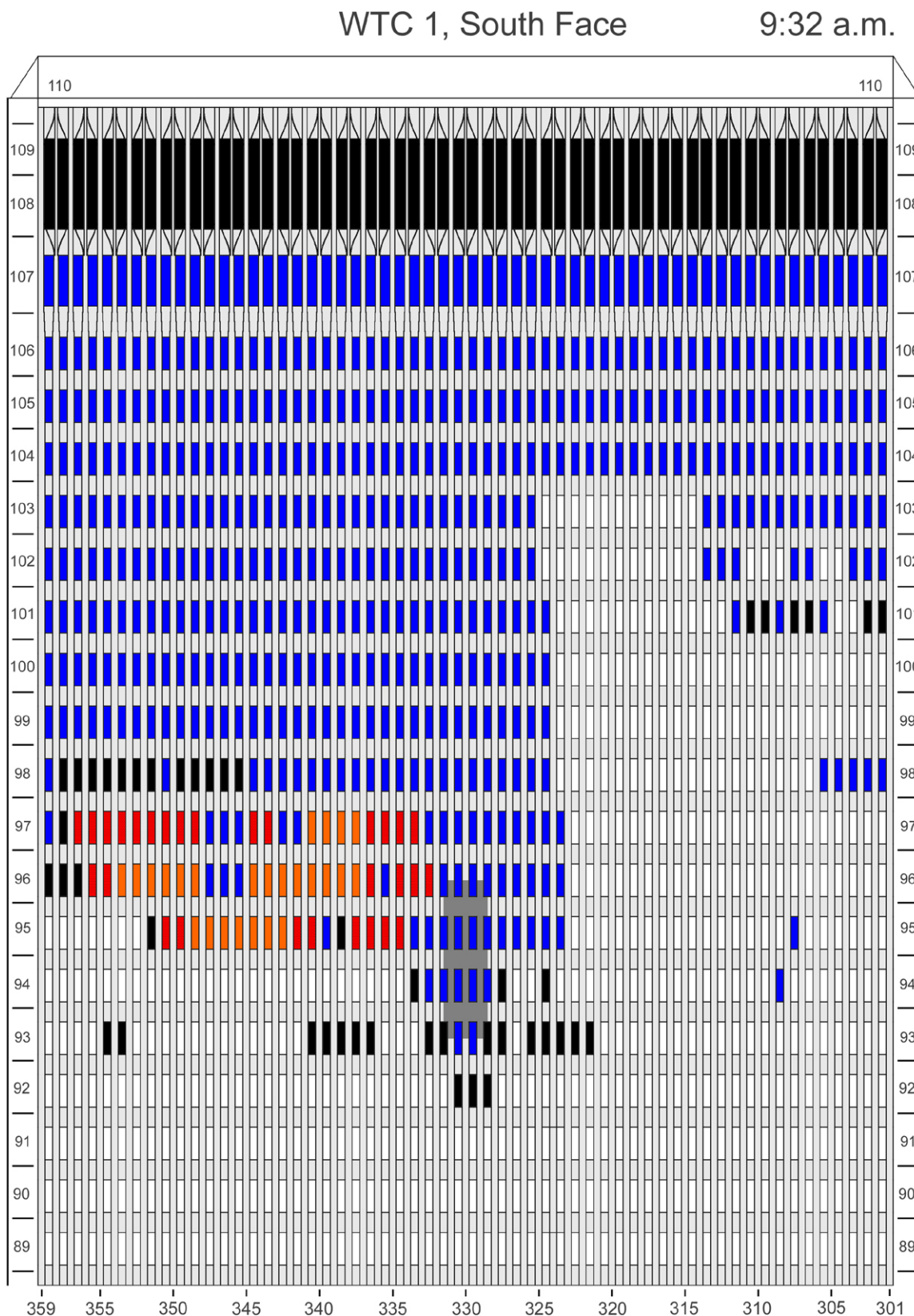


**Figure E-19. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:26 a.m. showing the condition of windows and locations of fires.**

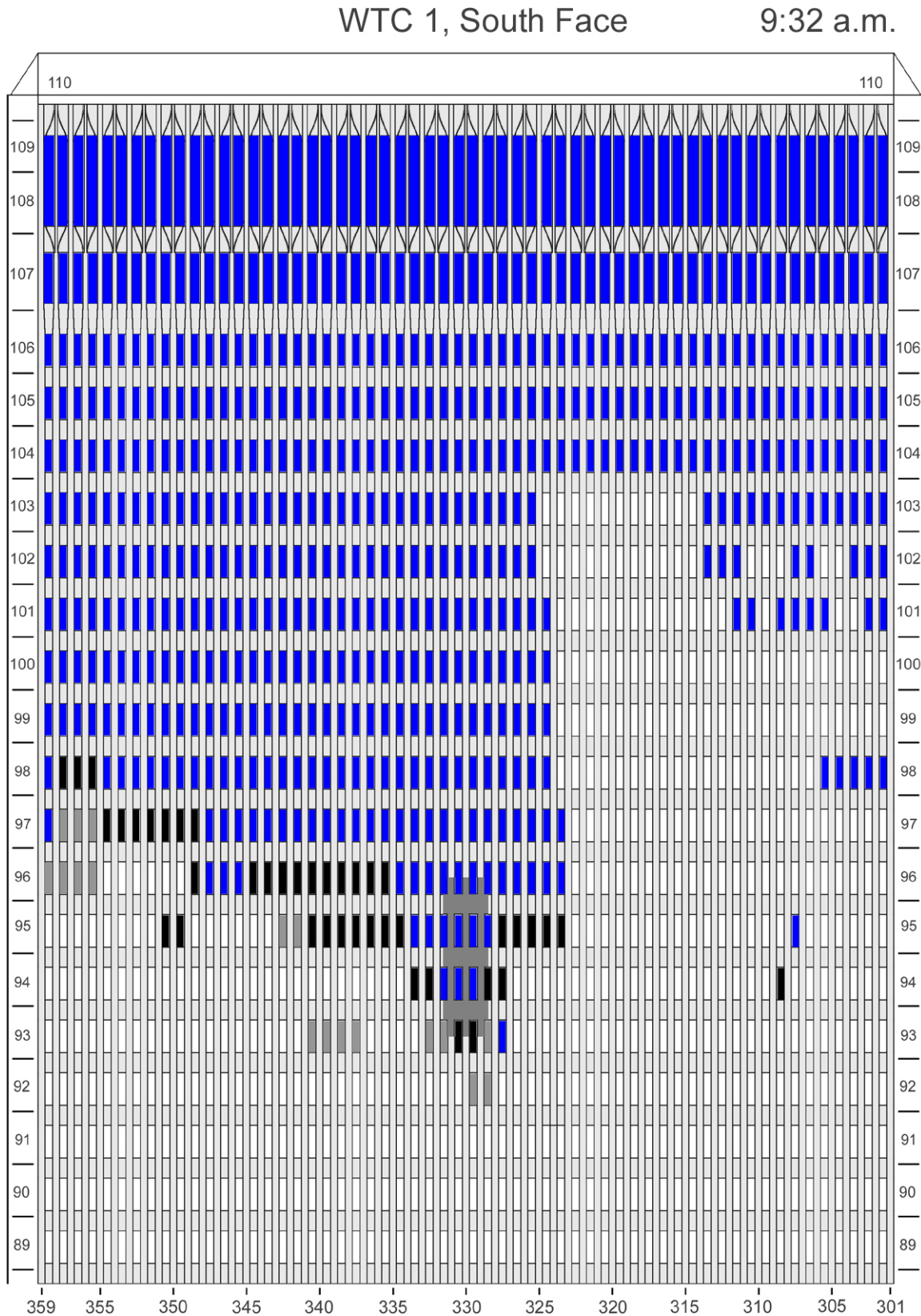




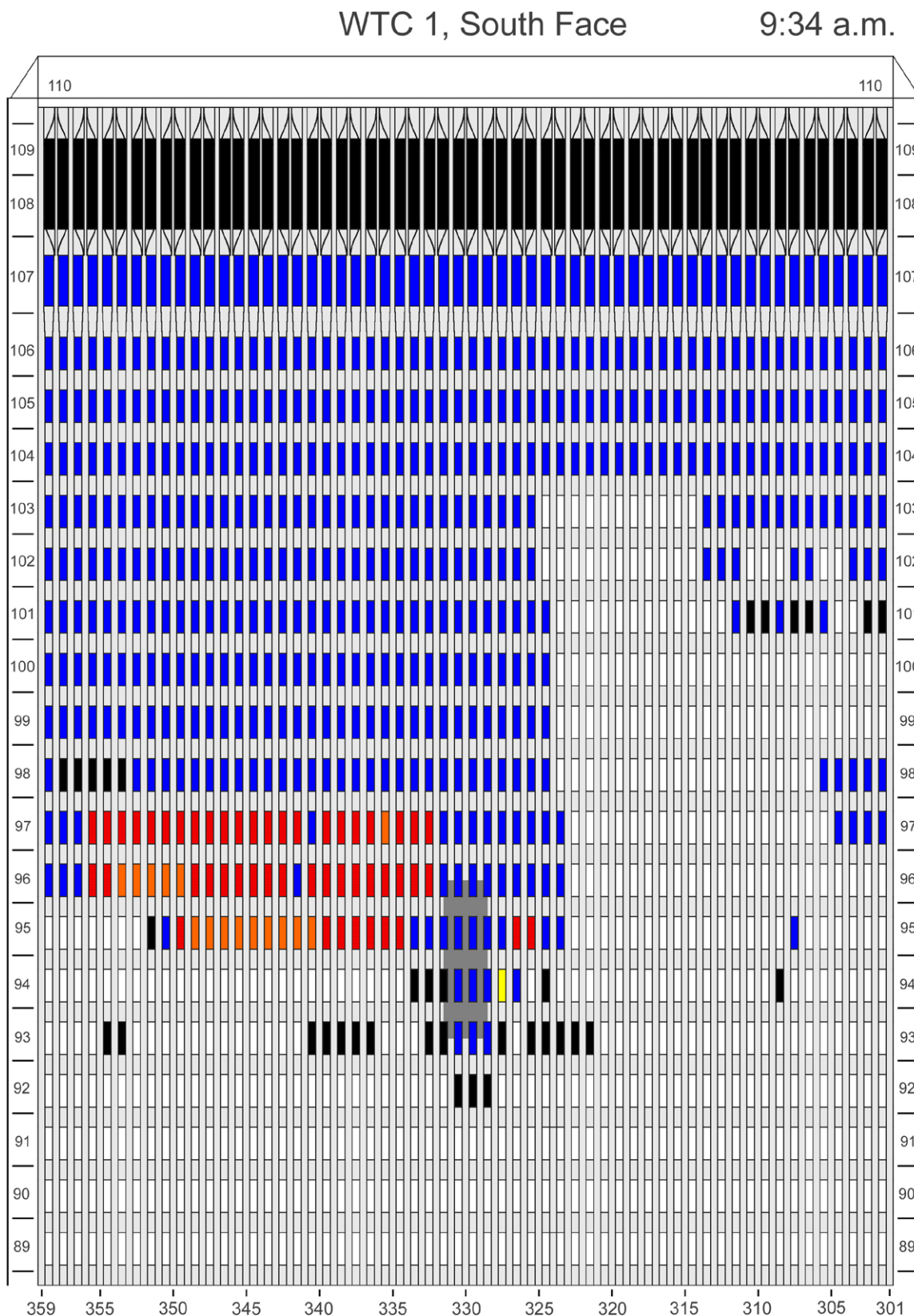
**Figure E-20. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:26 a.m. showing windows where smoke was observed and those that were hidden from view.**



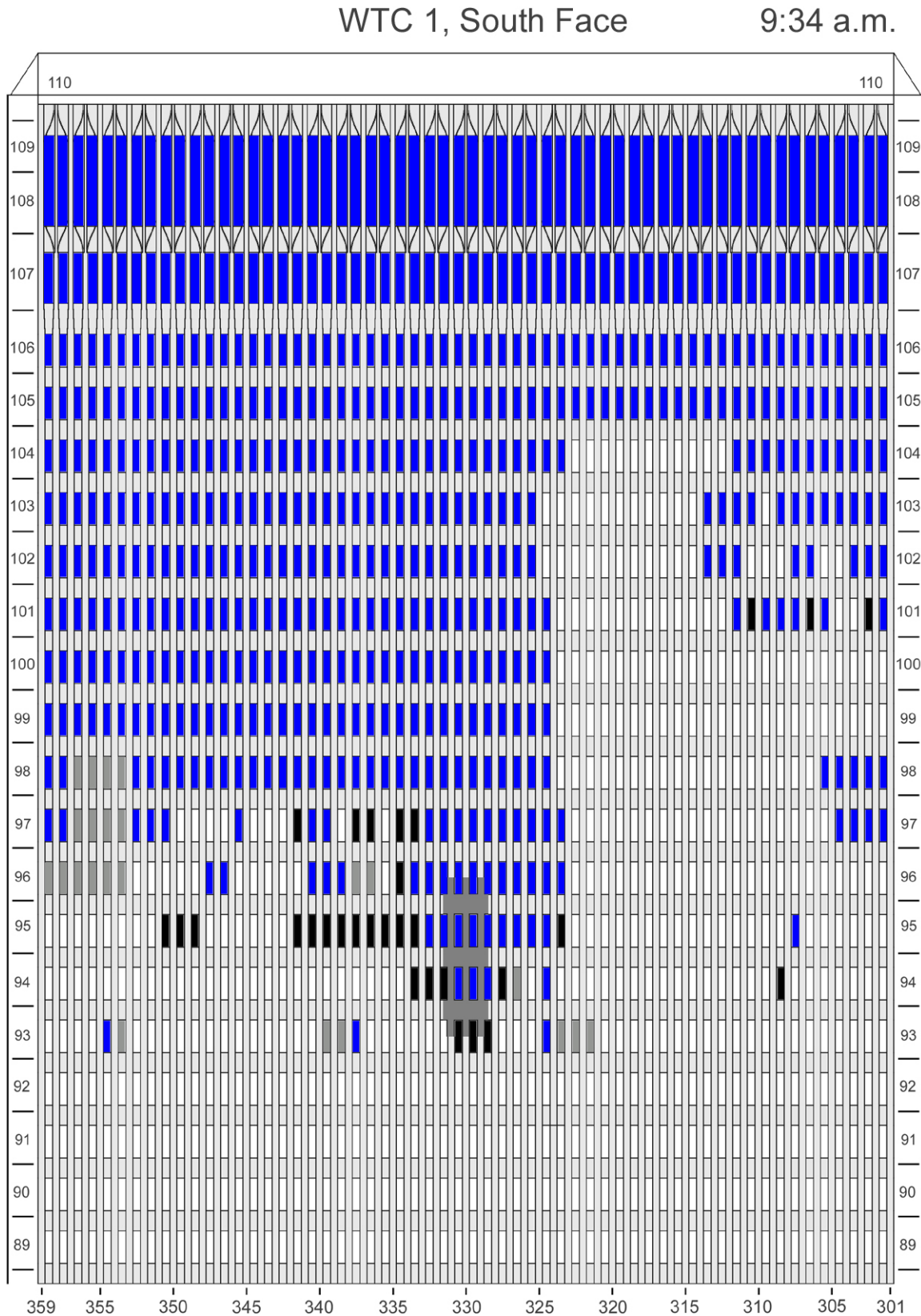
**Figure E-21. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:32 a.m. showing the condition of windows and locations of fires.**



**Figure E-22. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:32 a.m. showing windows where smoke was observed and those that were hidden from view.**

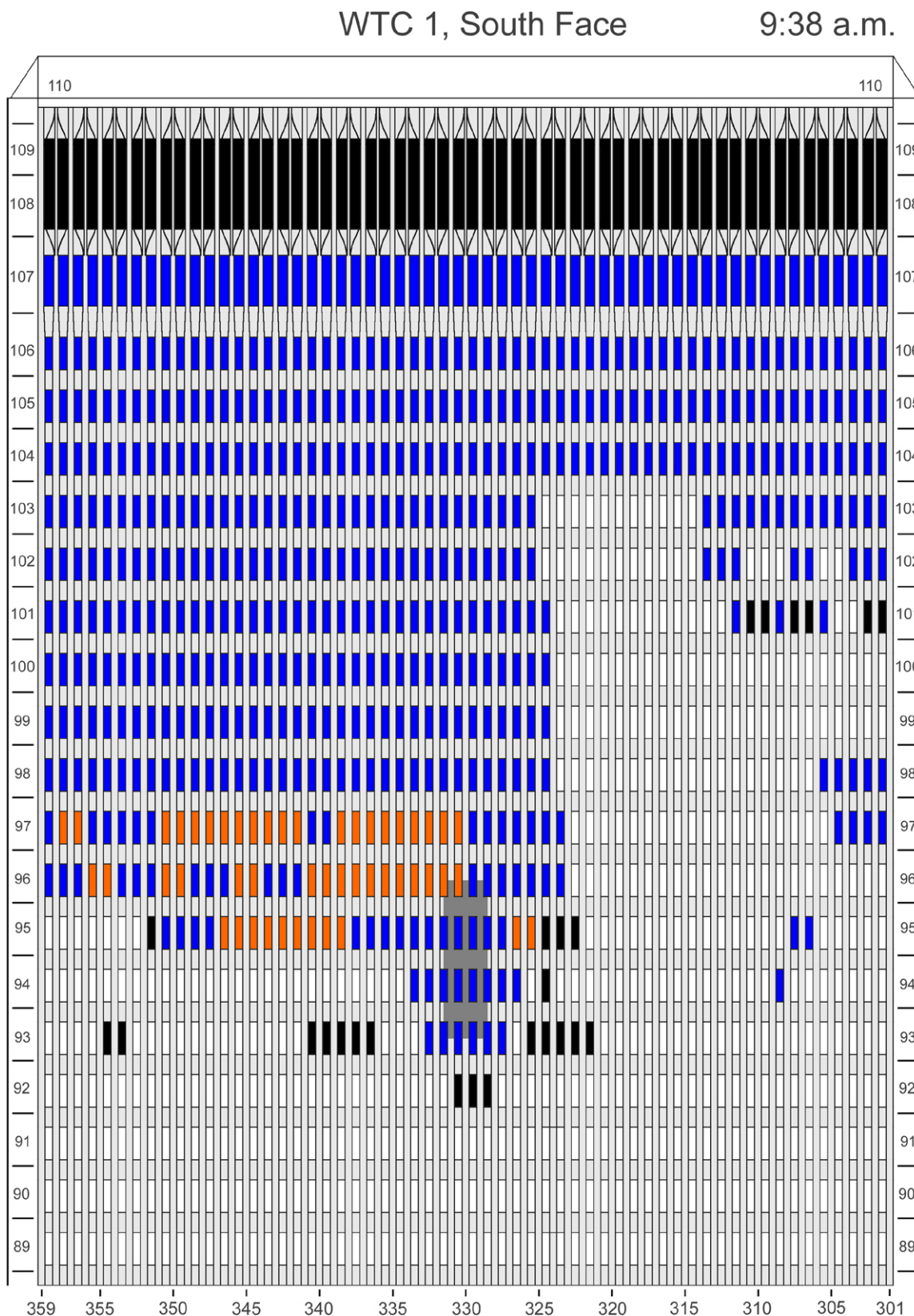


**Figure E-23. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:34 a.m. showing the condition of windows and locations of fires.**

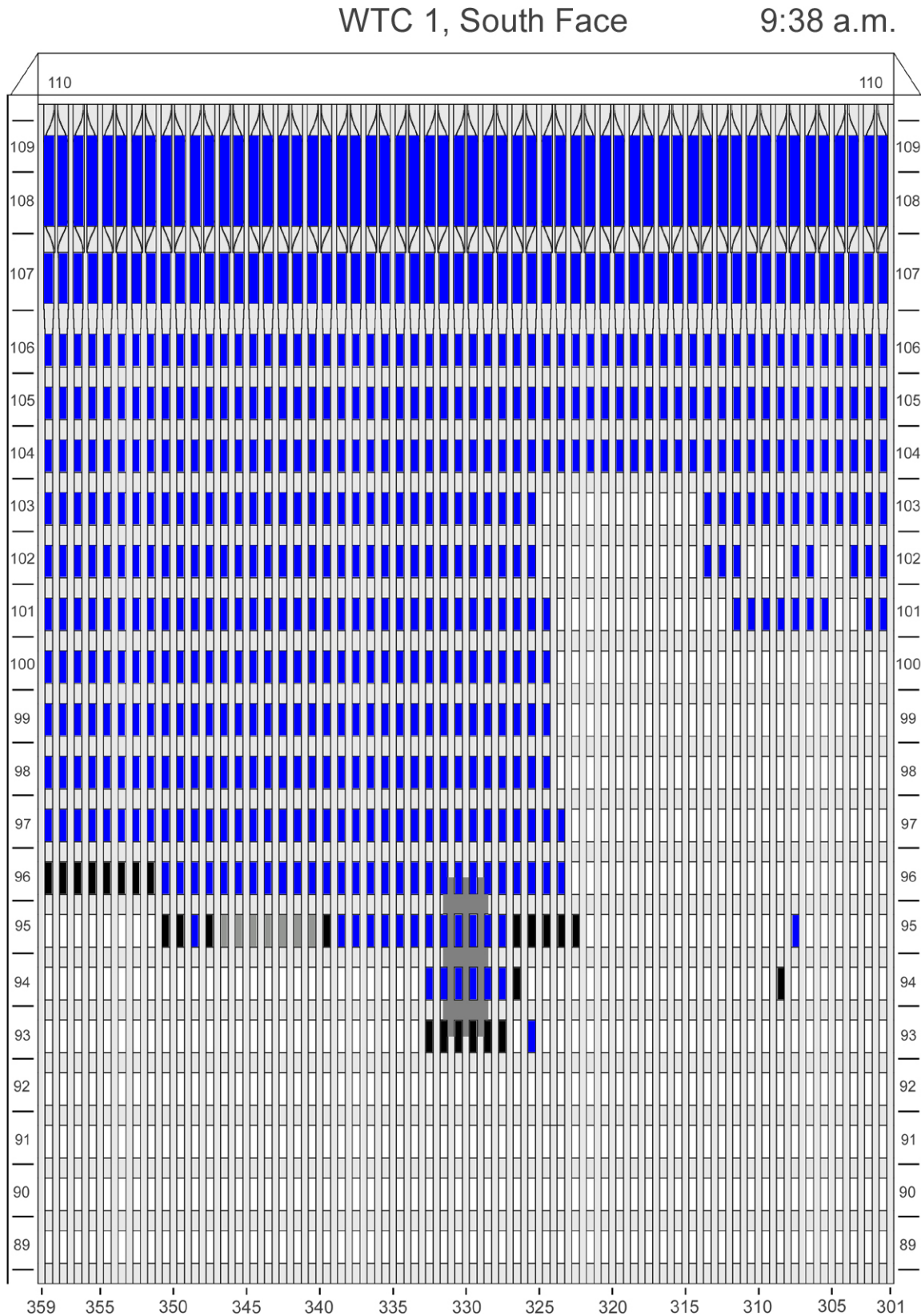


**Figure E-24. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:34 a.m. showing windows where smoke was observed and those that were hidden from view.**

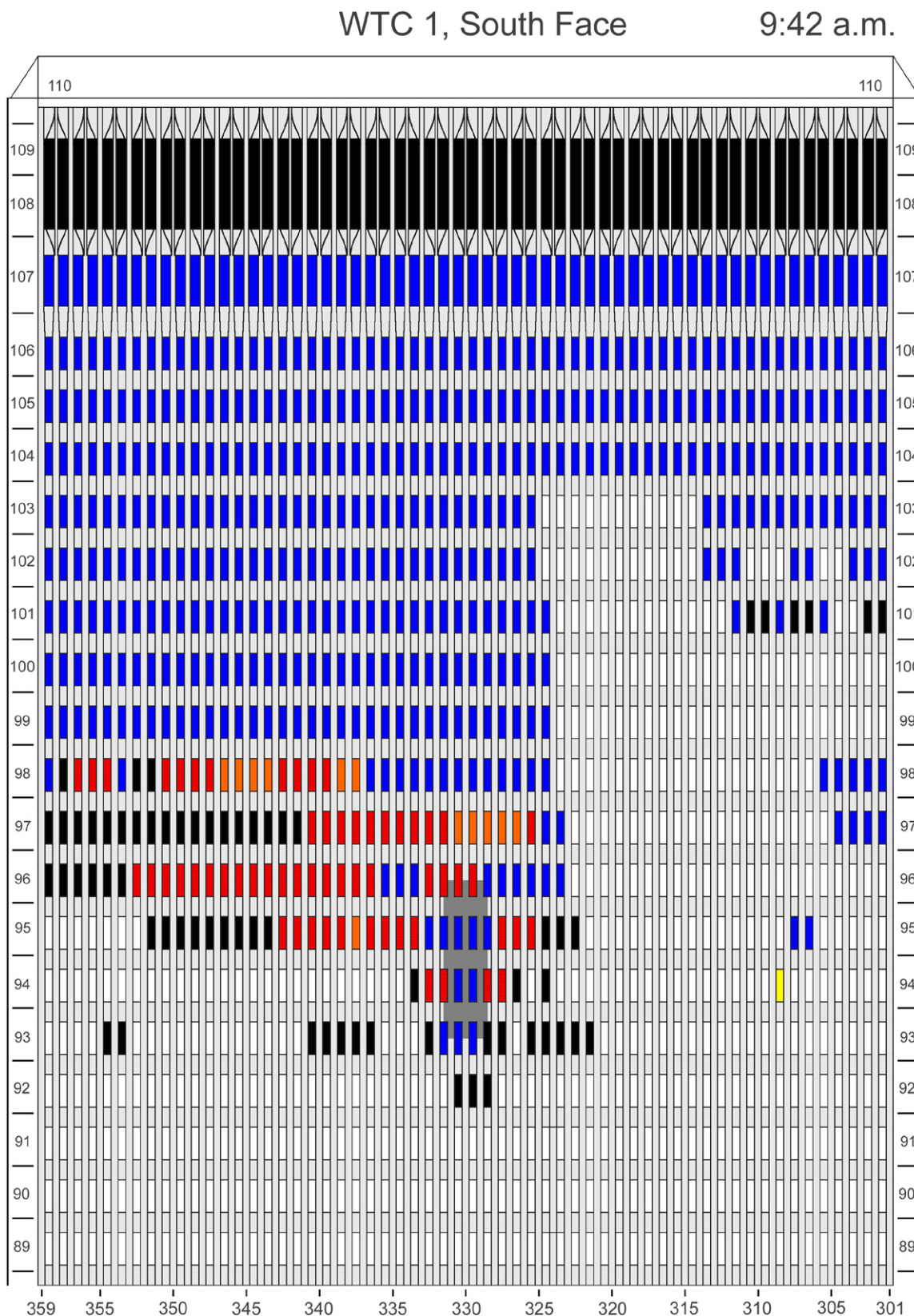




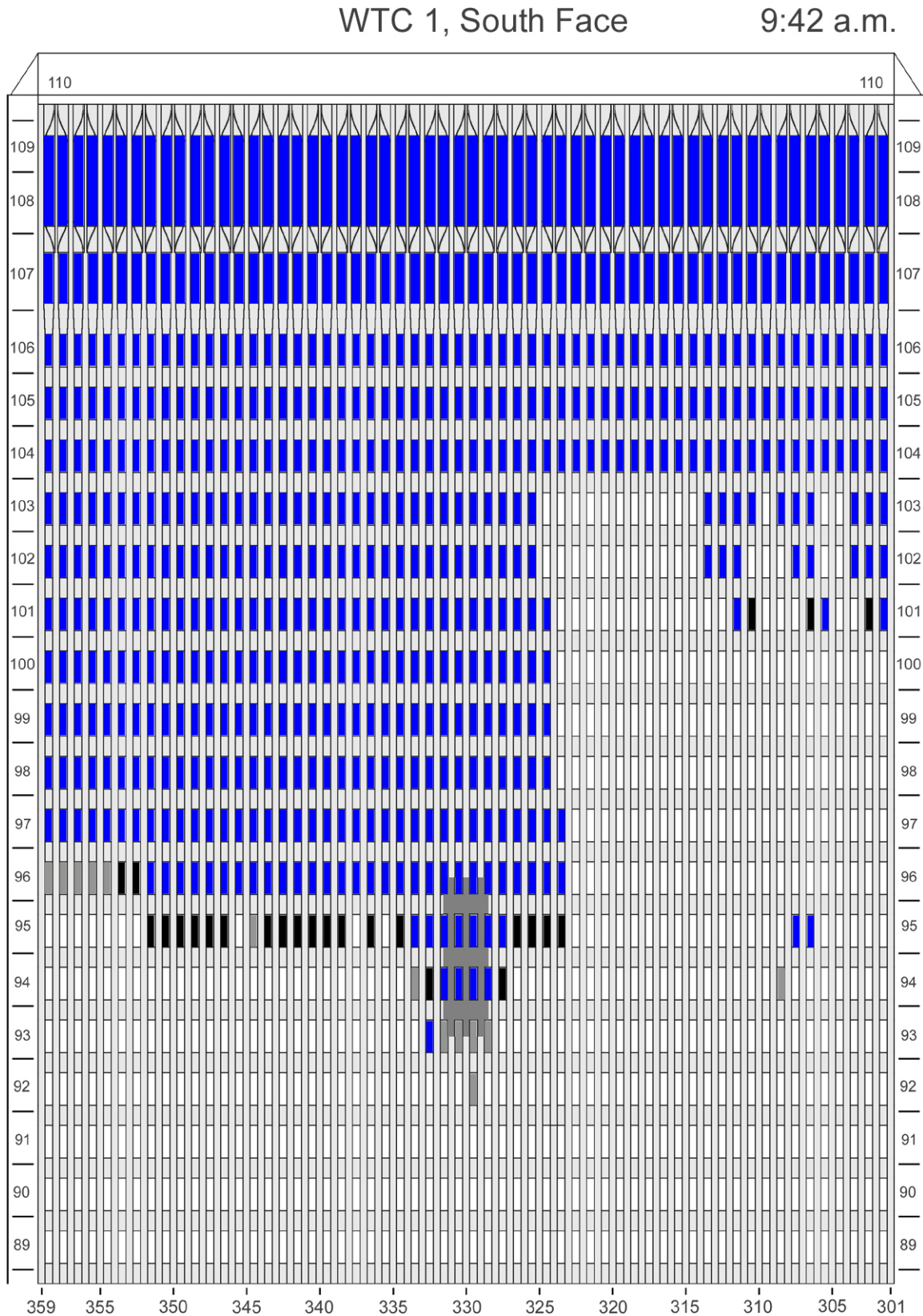
**Figure E-25. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:38 a.m. showing the condition of windows and locations of fires.**



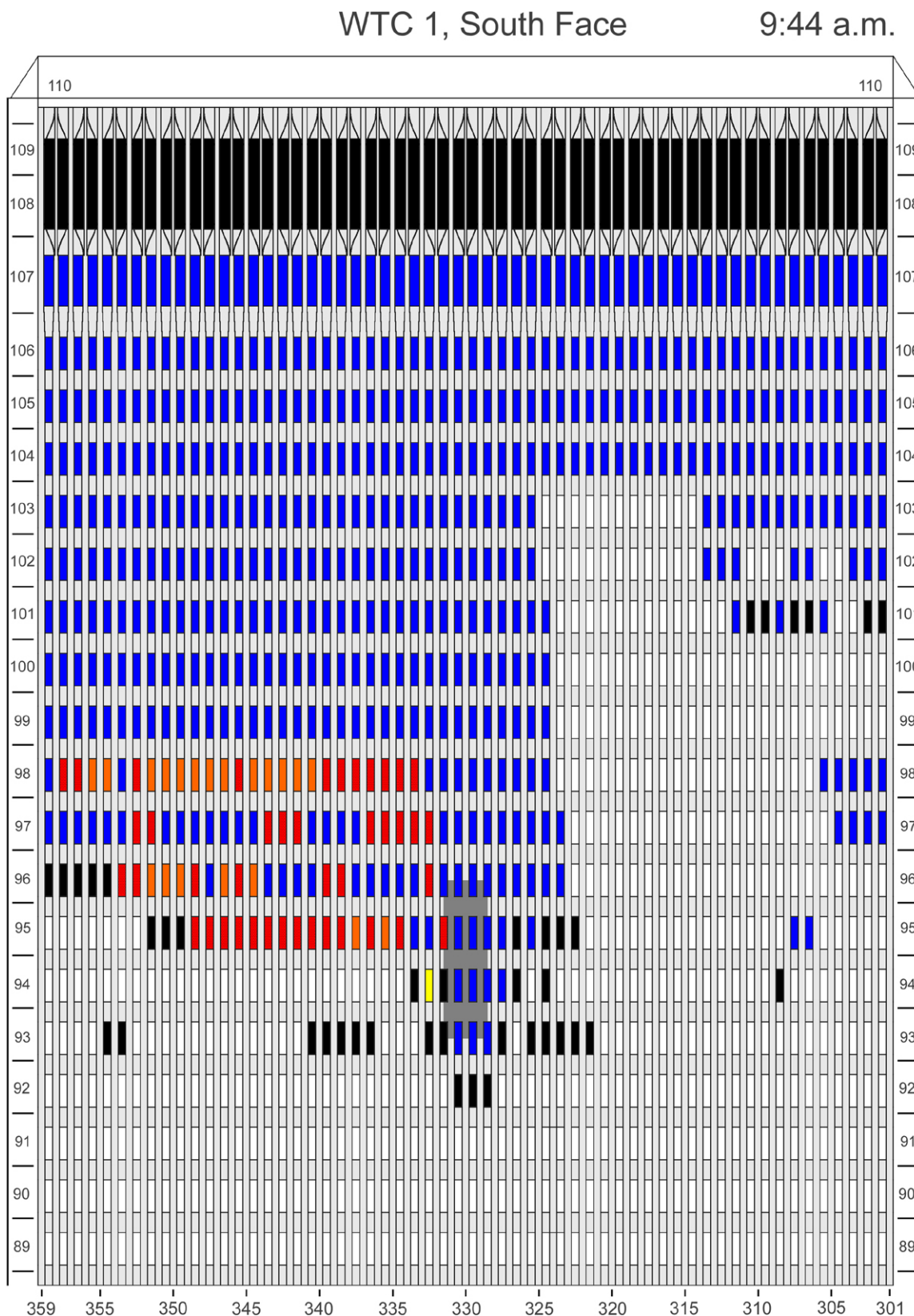
**Figure E-26. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:38 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure E-27. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:42 a.m. showing the condition of windows and locations of fires.**

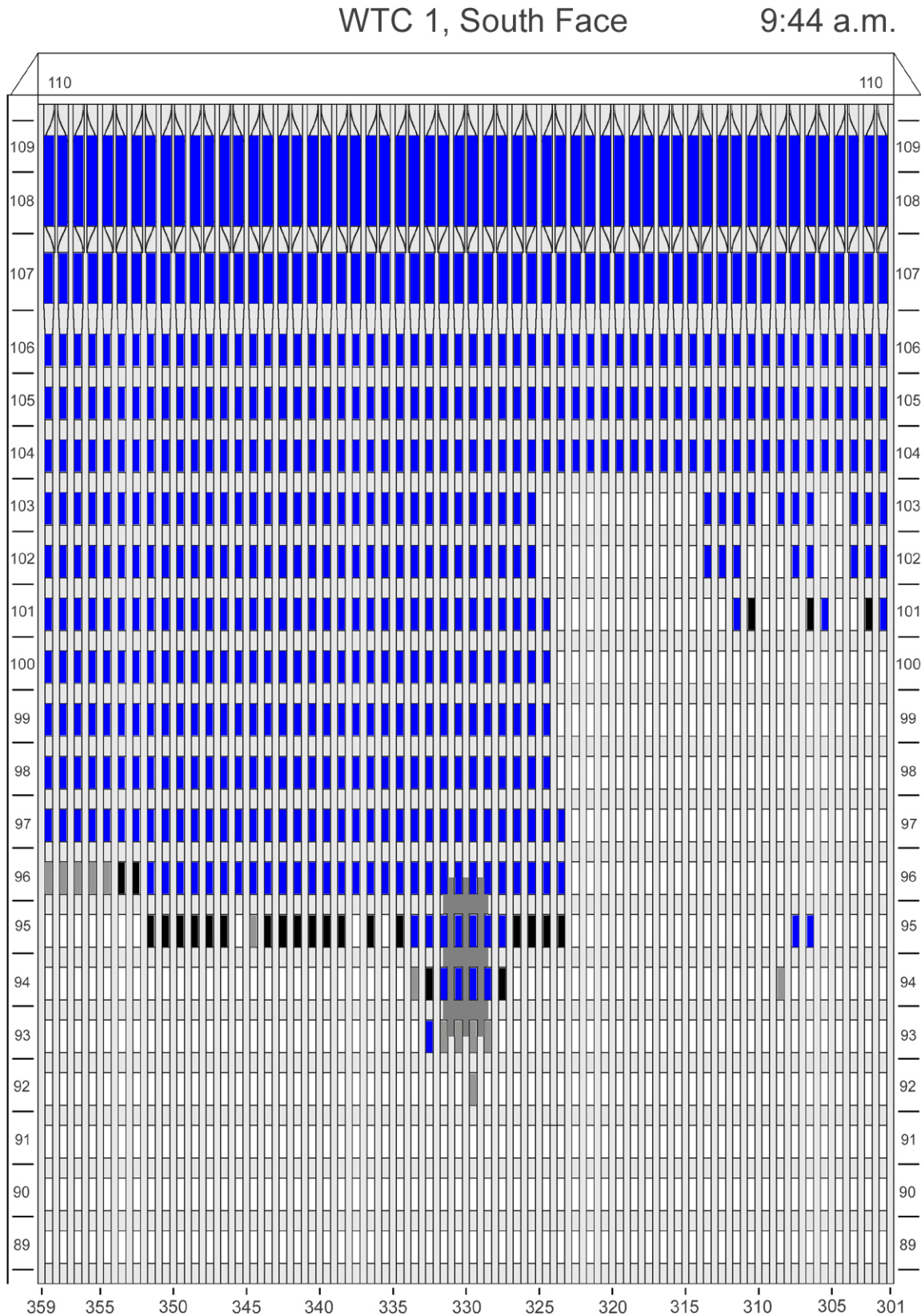


**Figure E-28. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:42 a.m. showing windows where smoke was observed and those that were hidden from view.**

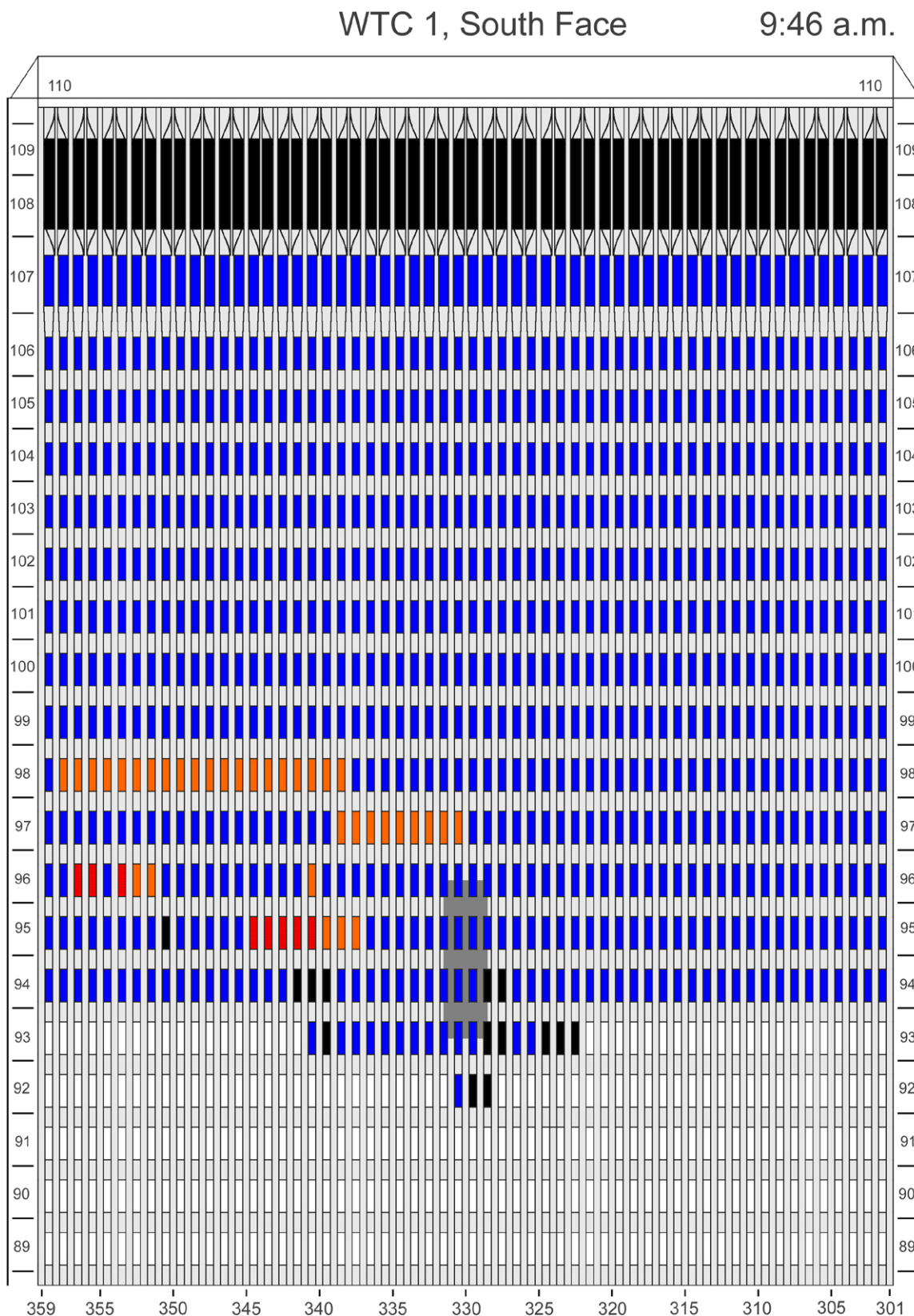


**Figure E-29. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:44 a.m. showing the condition of windows and locations of fires.**

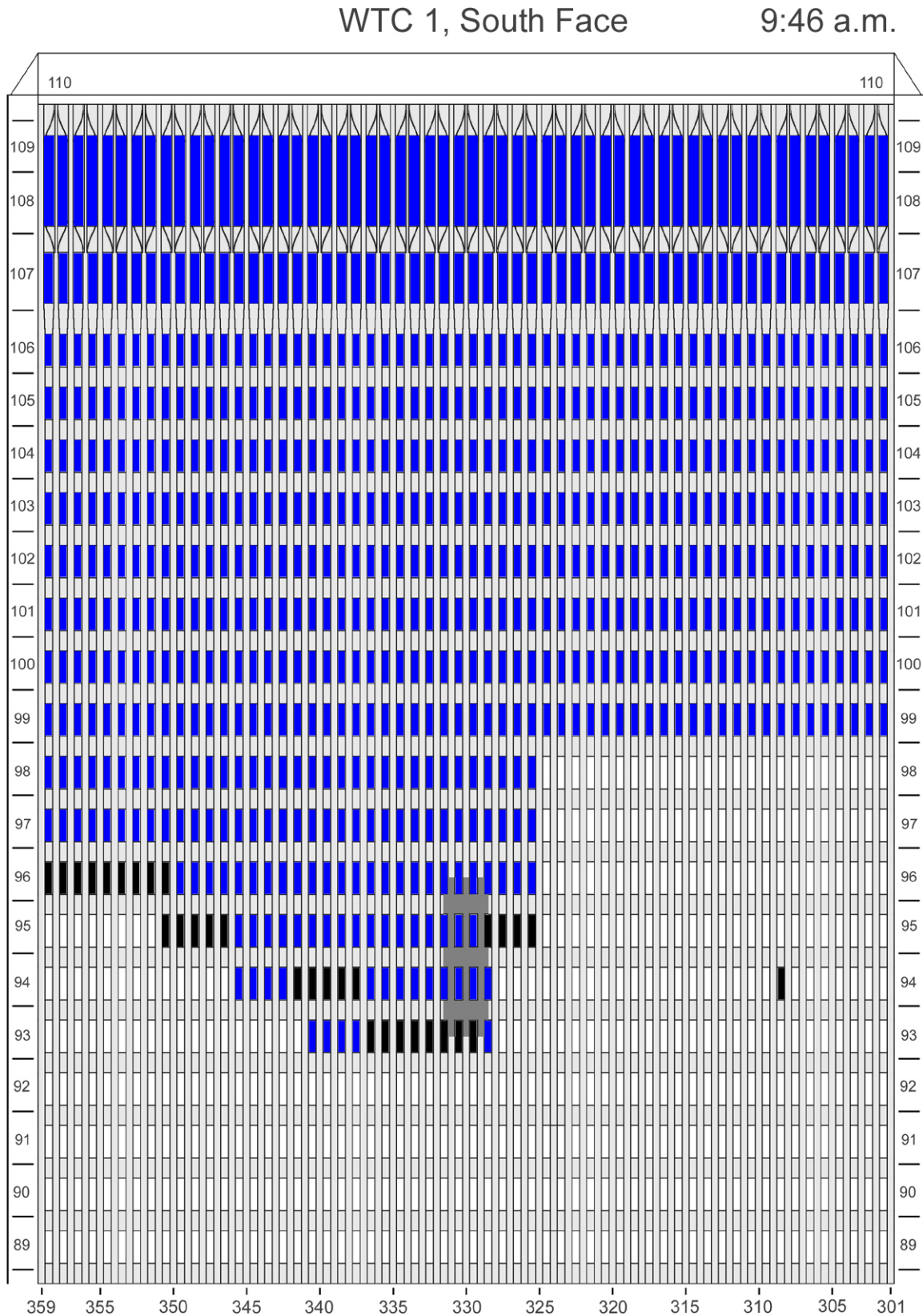




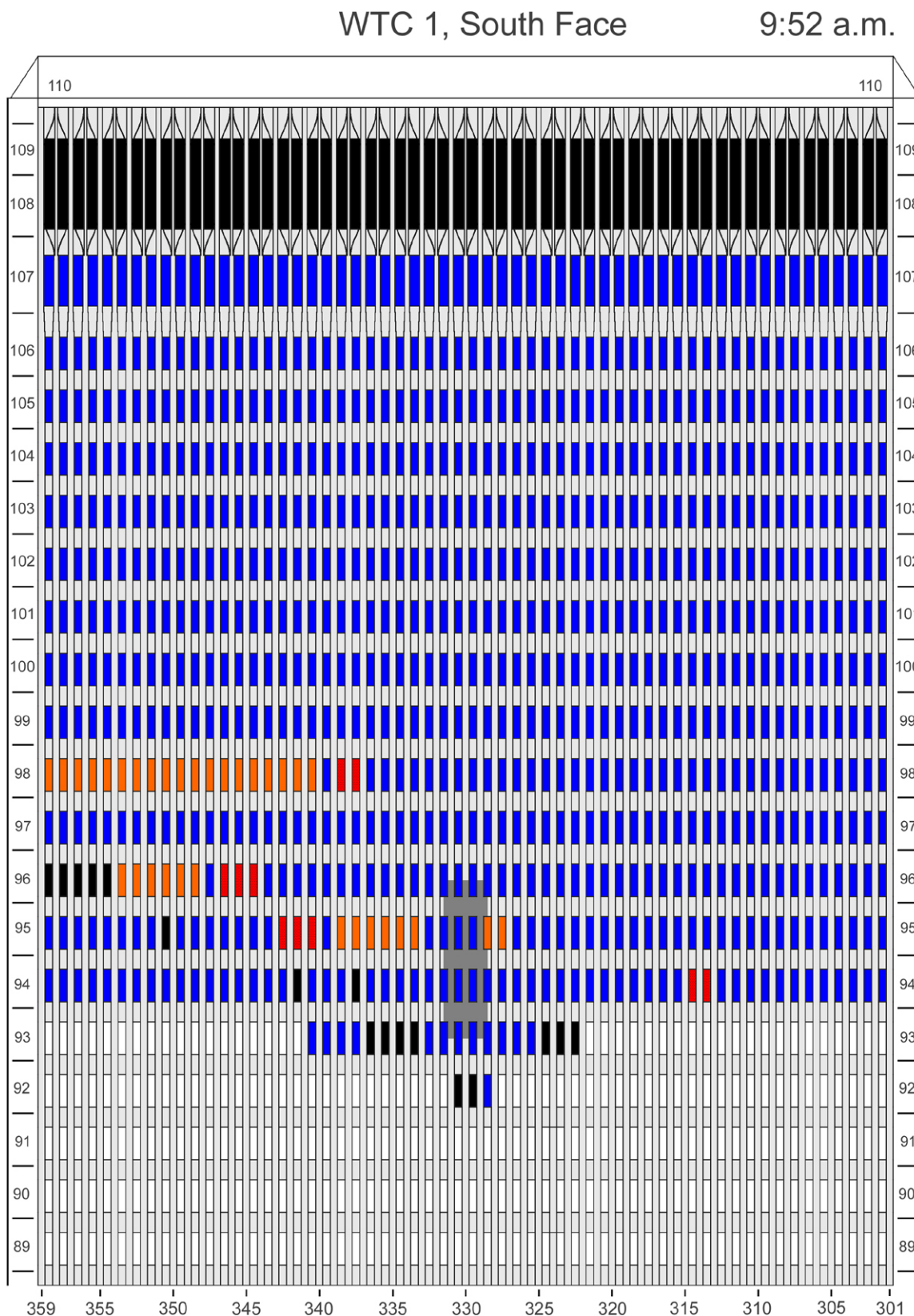
**Figure E-30. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:44 a.m. showing windows where smoke was observed and those that were hidden from view.**

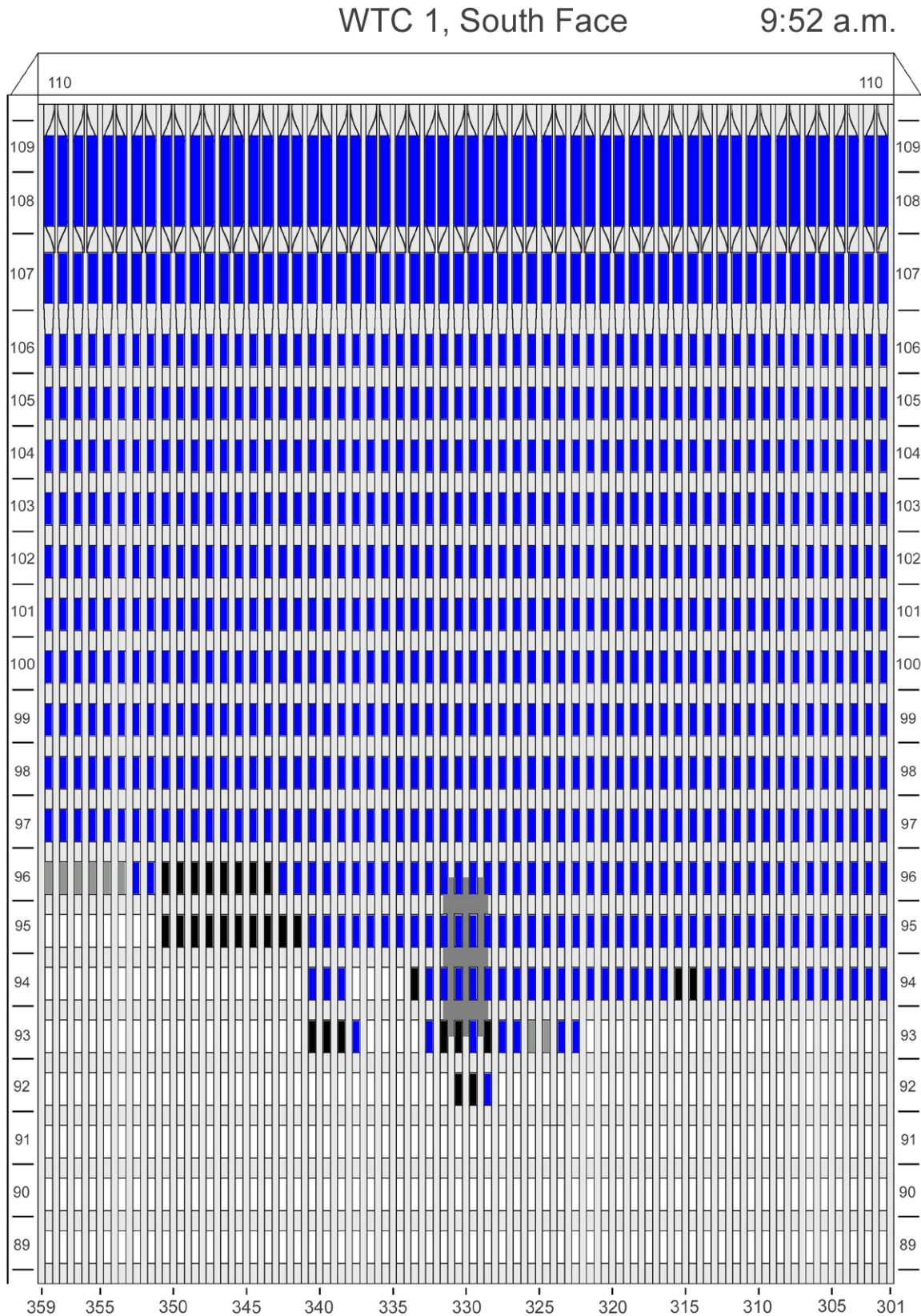


**Figure E-31. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:46 a.m. showing the condition of windows and locations of fires.**



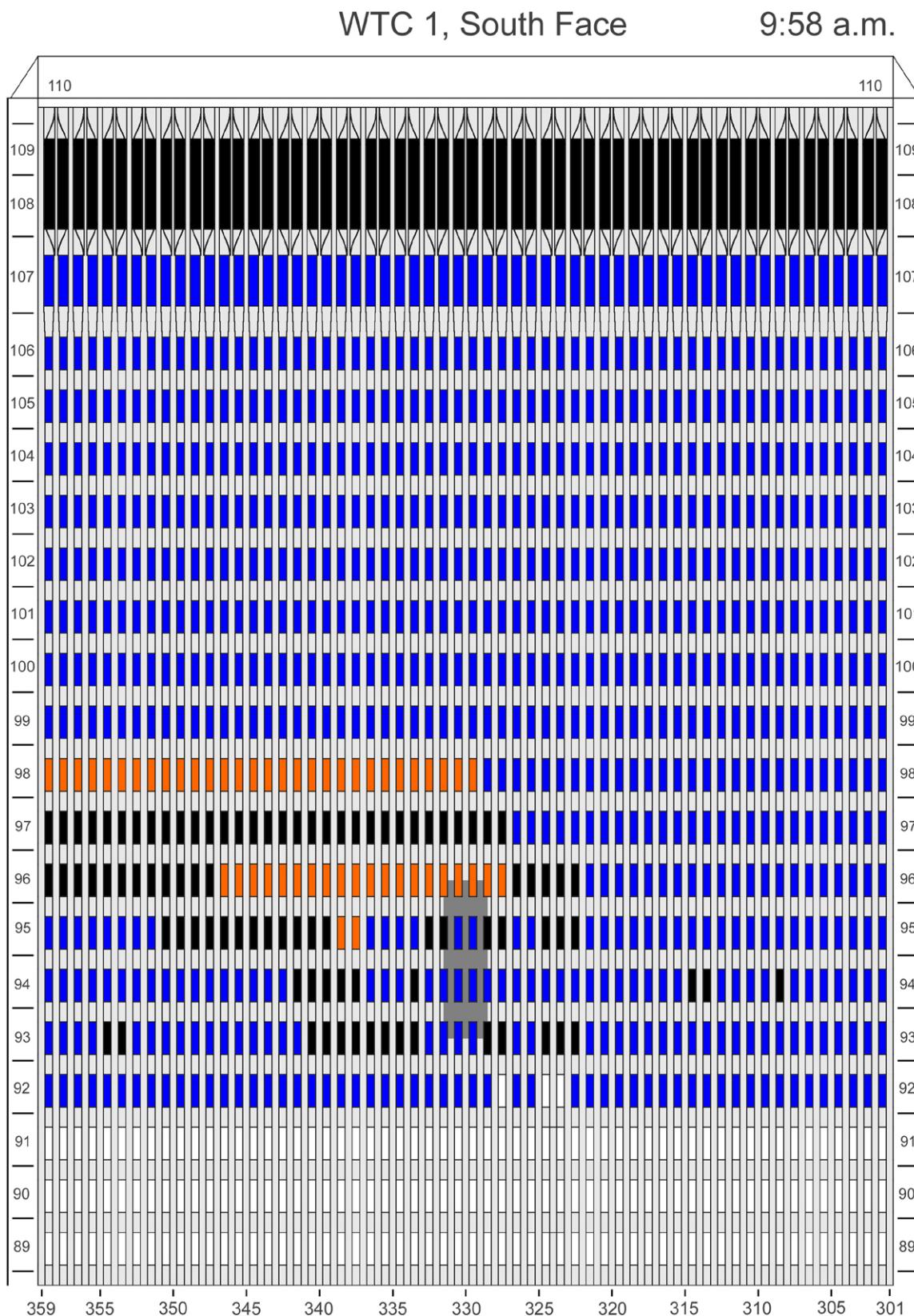
**Figure E-32. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:46 a.m. showing windows where smoke was observed and those that were hidden from view.**



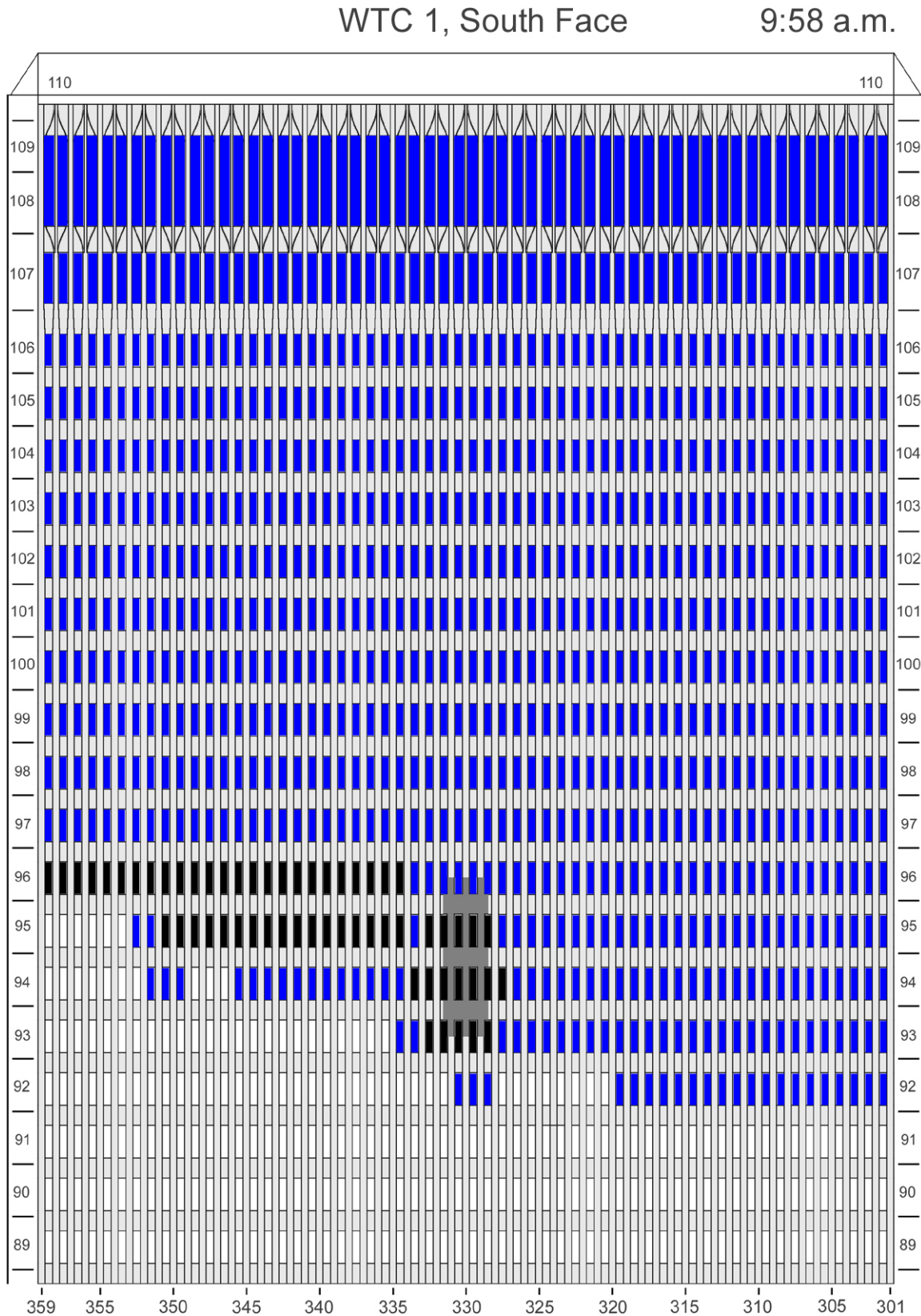


**Figure E-34. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:52 a.m. showing windows where smoke was observed and those that were hidden from view.**

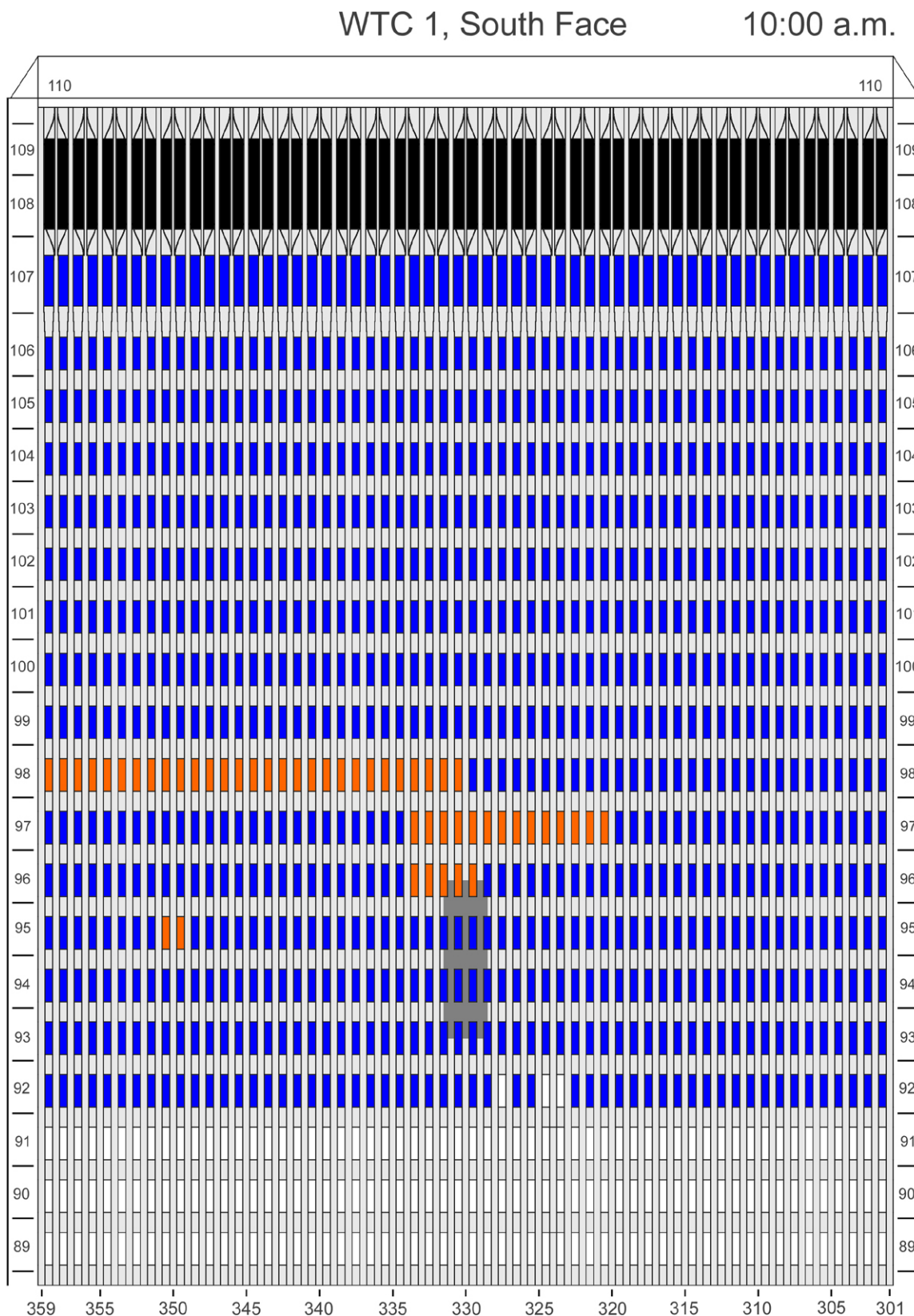




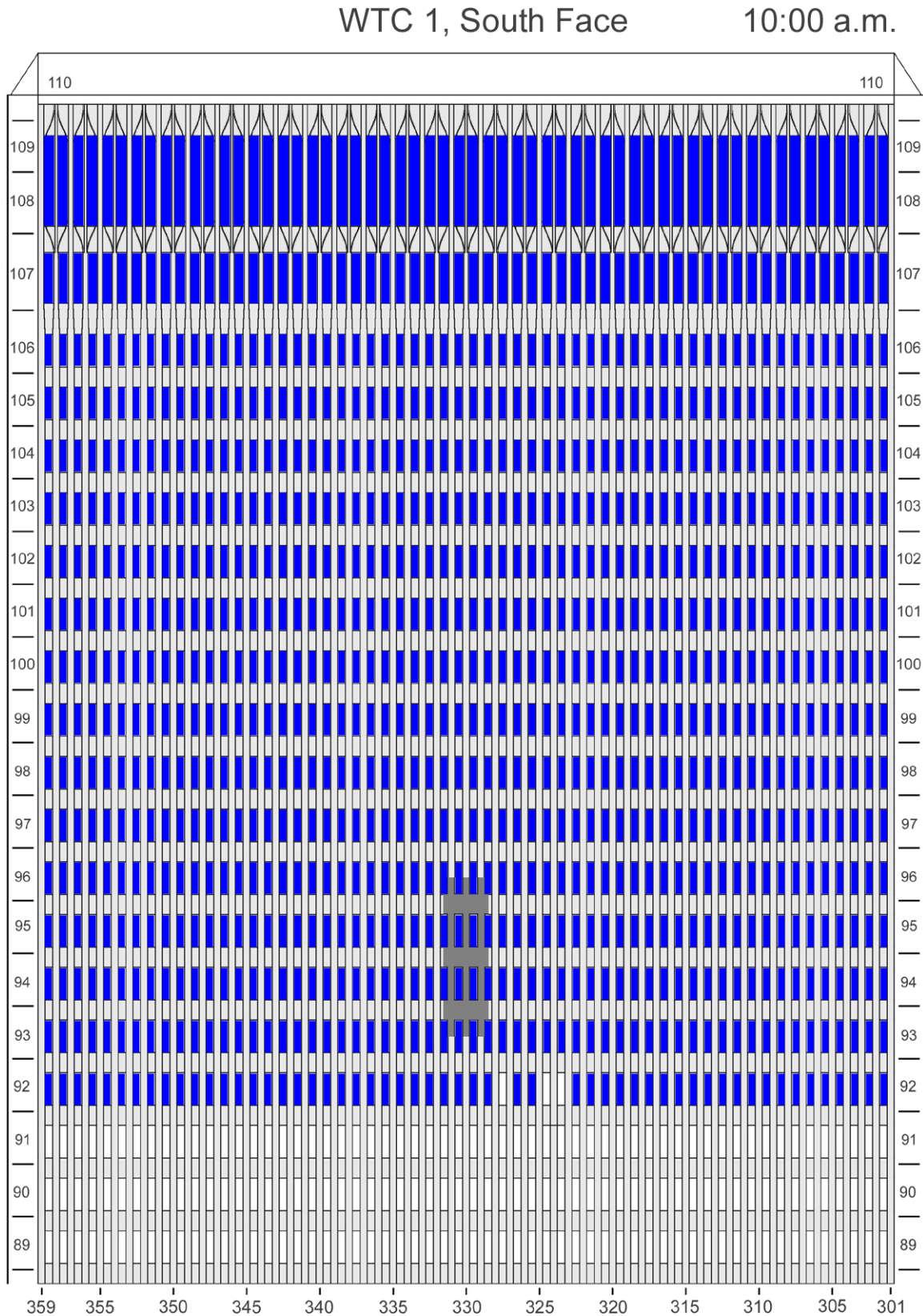
**Figure E-35. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:58 a.m. showing the condition of windows and locations of fires.**



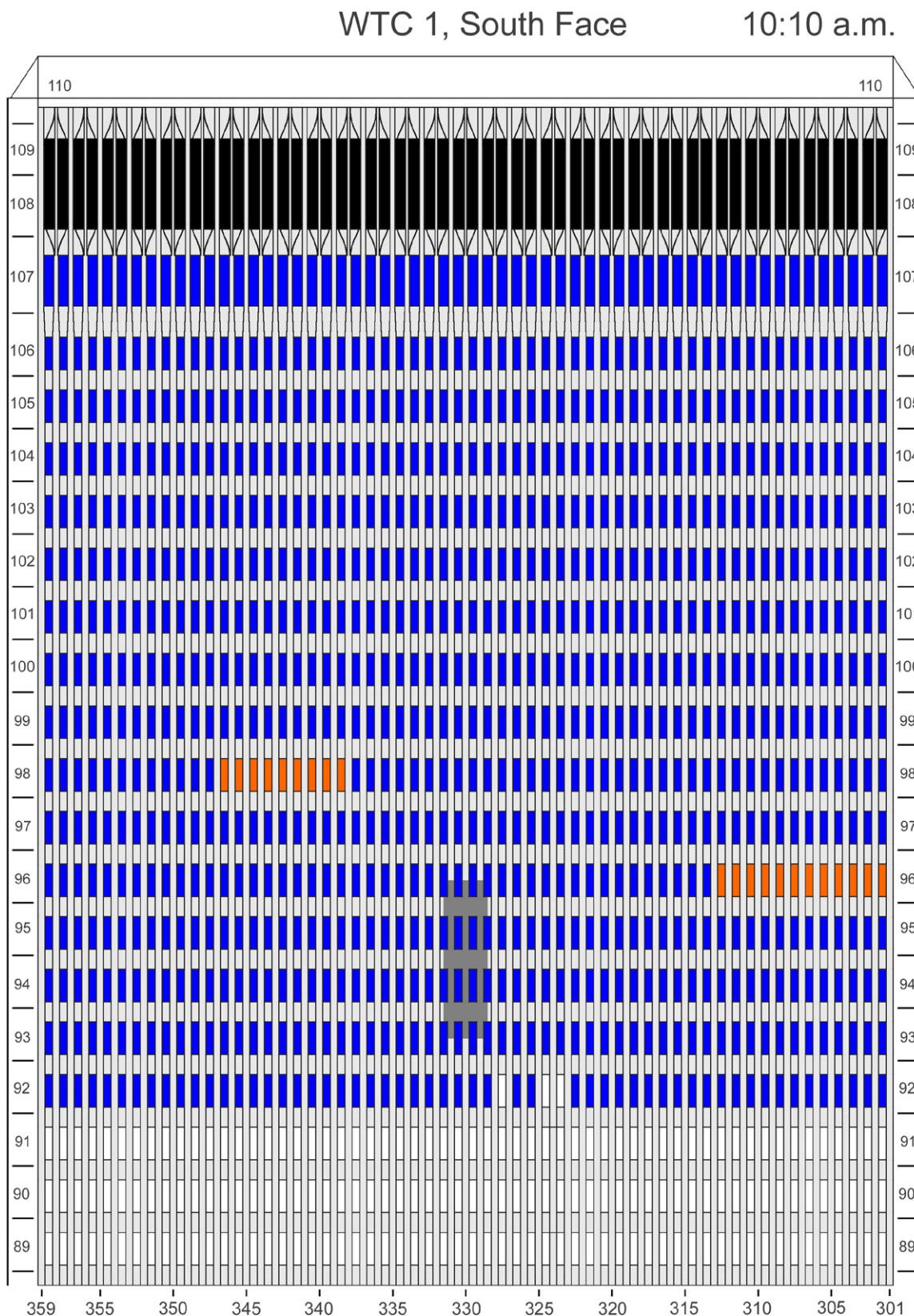
**Figure E-36. Diagram of the south face of WTC 1 for floors 89 to 110 at 9:58 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure E-37. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:00 a.m. showing the condition of windows and locations of fires.**

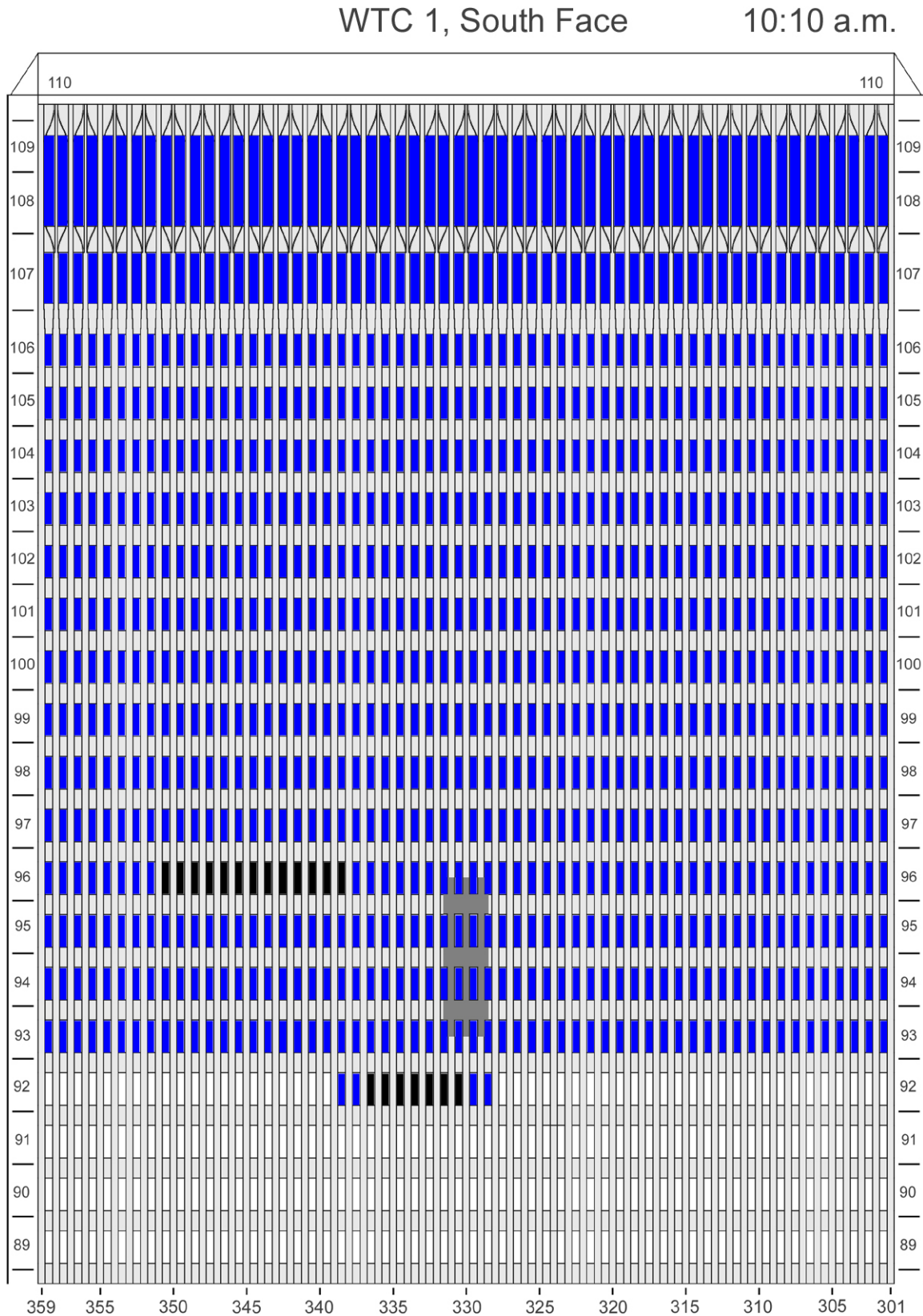


**Figure E-38. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:00 a.m. showing windows where smoke was observed and those that were hidden from view.**

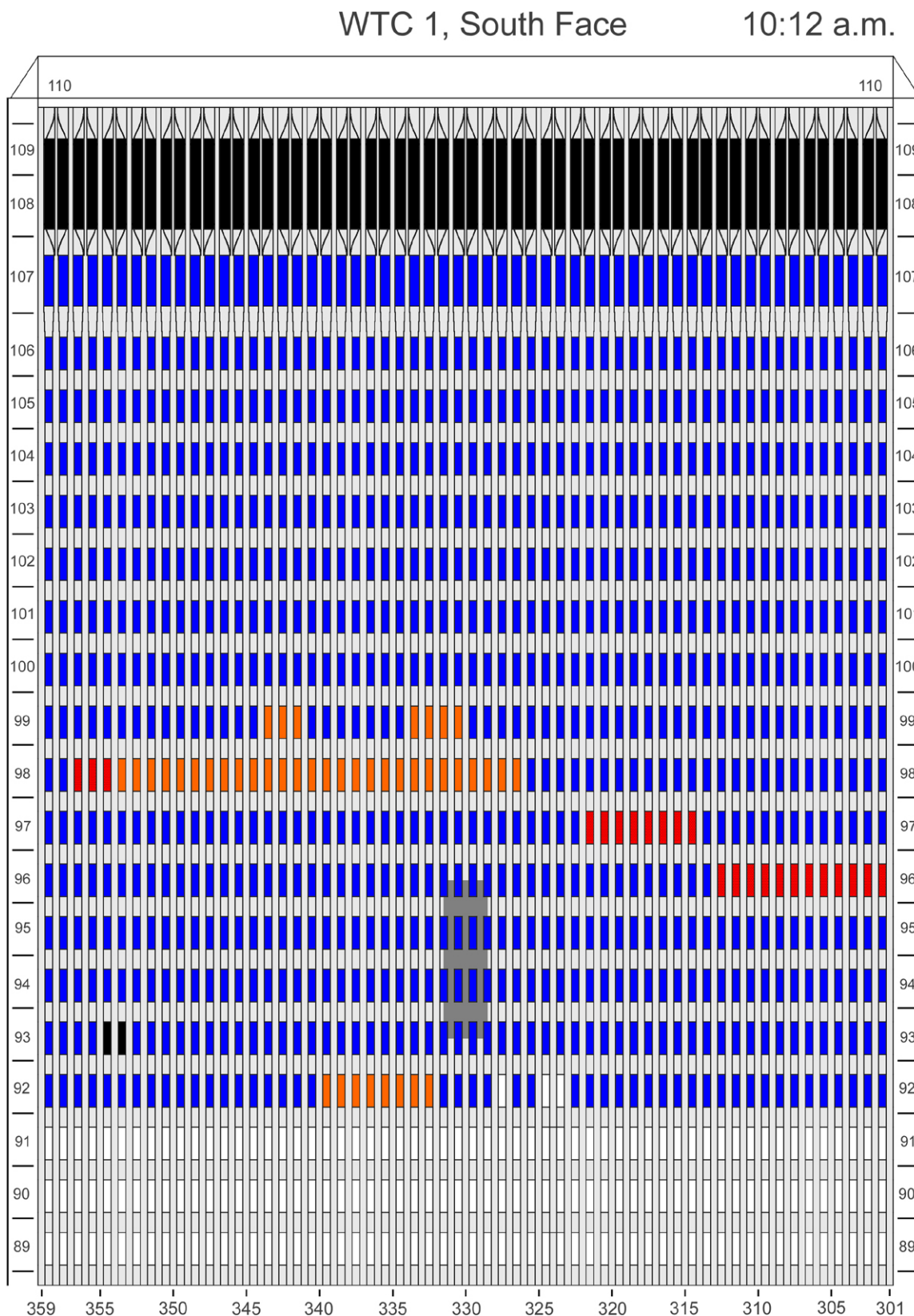


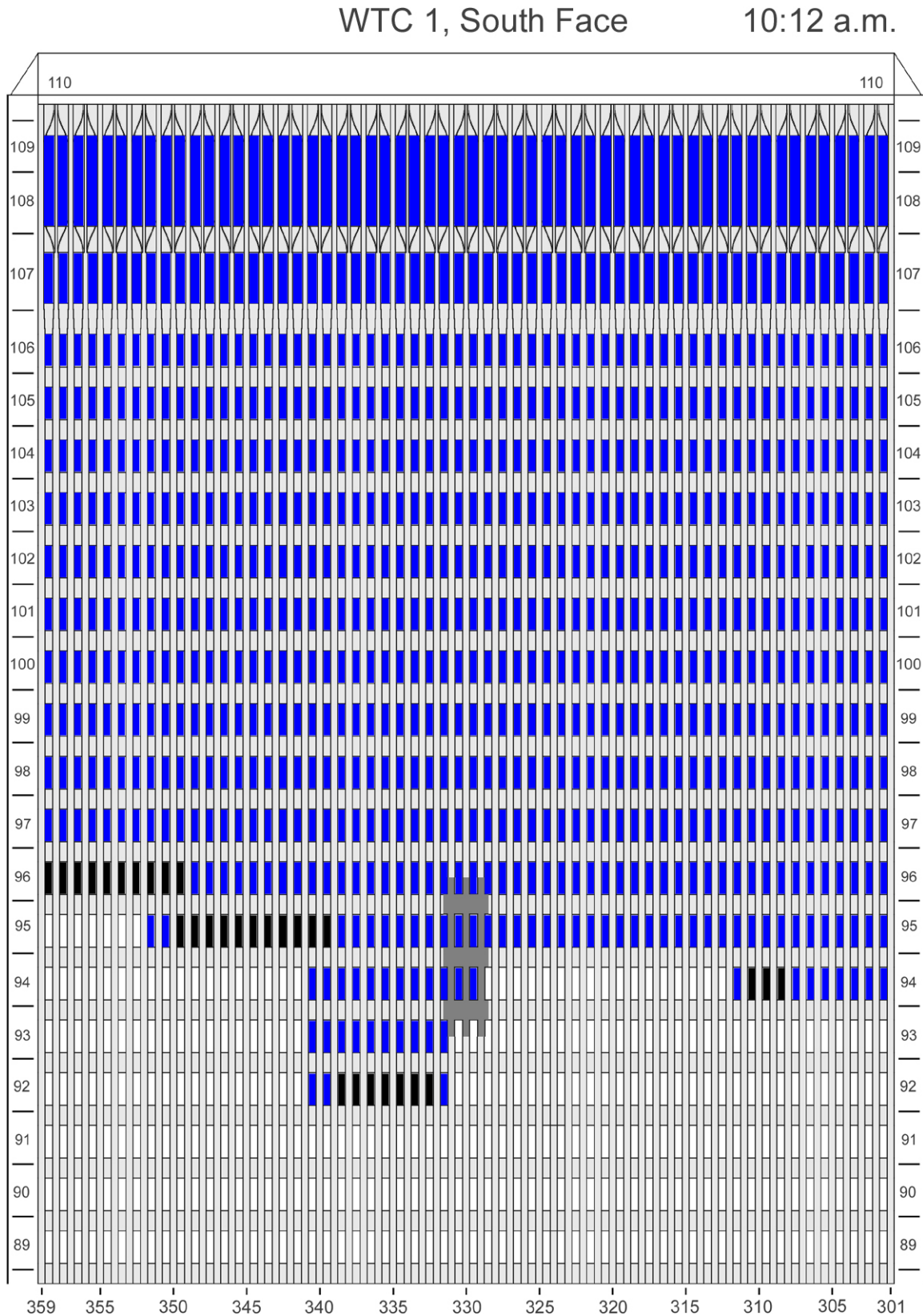
**Figure E-39. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:10 a.m. showing the condition of windows and locations of fires.**



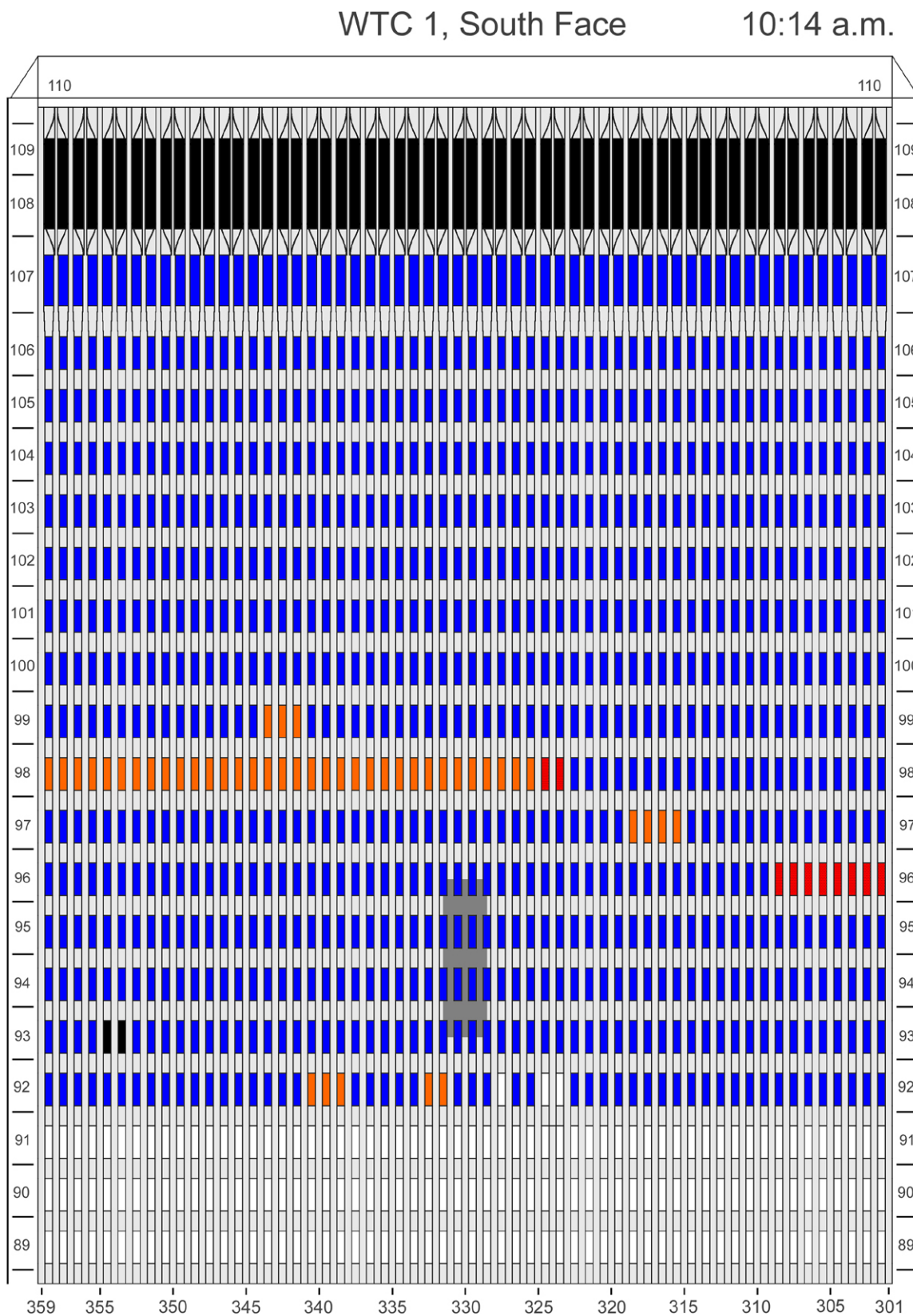


**Figure E-40. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:10 a.m. showing windows where smoke was observed and those that were hidden from view.**

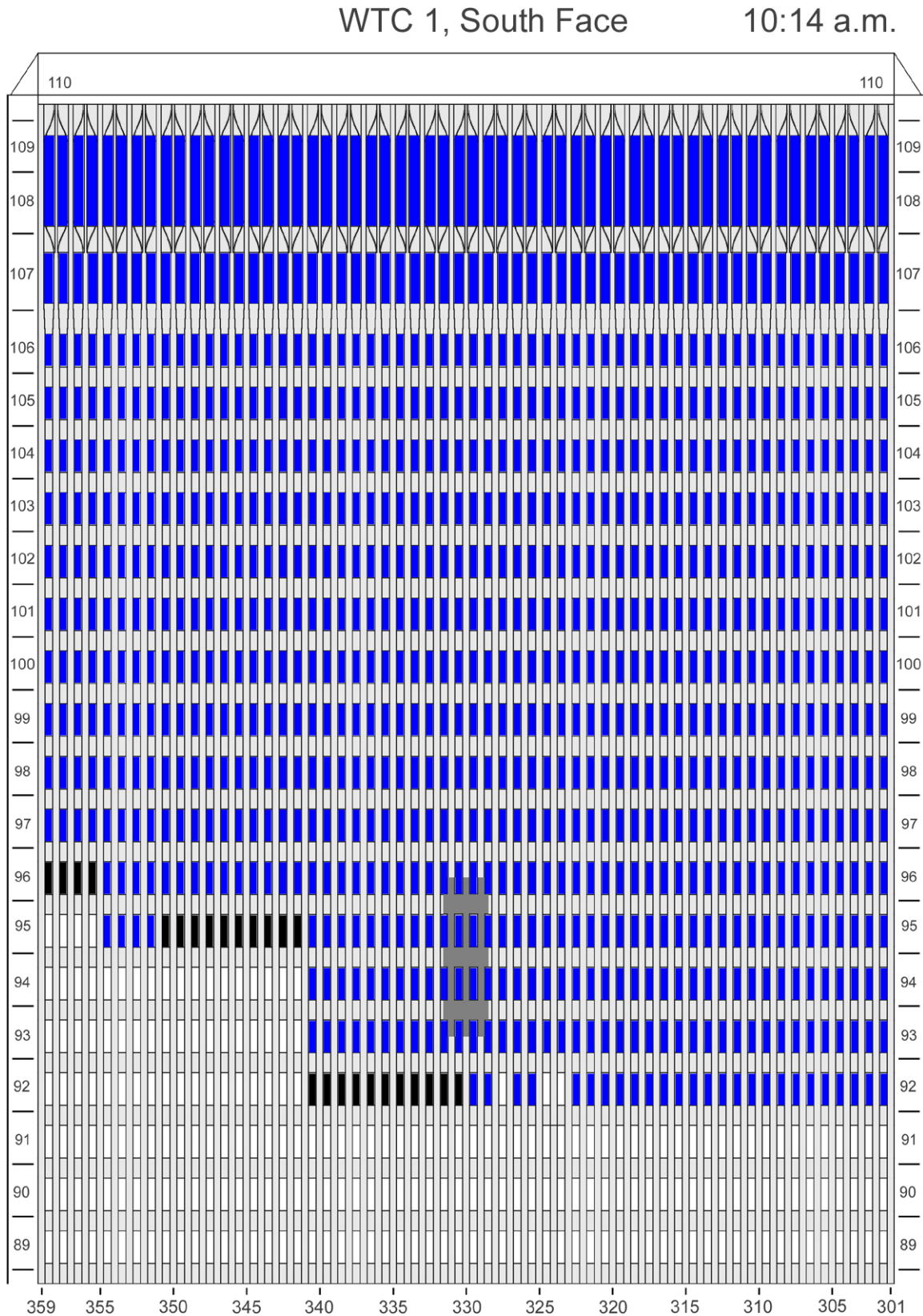




**Figure E-42. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:12 a.m. showing windows where smoke was observed and those that were hidden from view.**

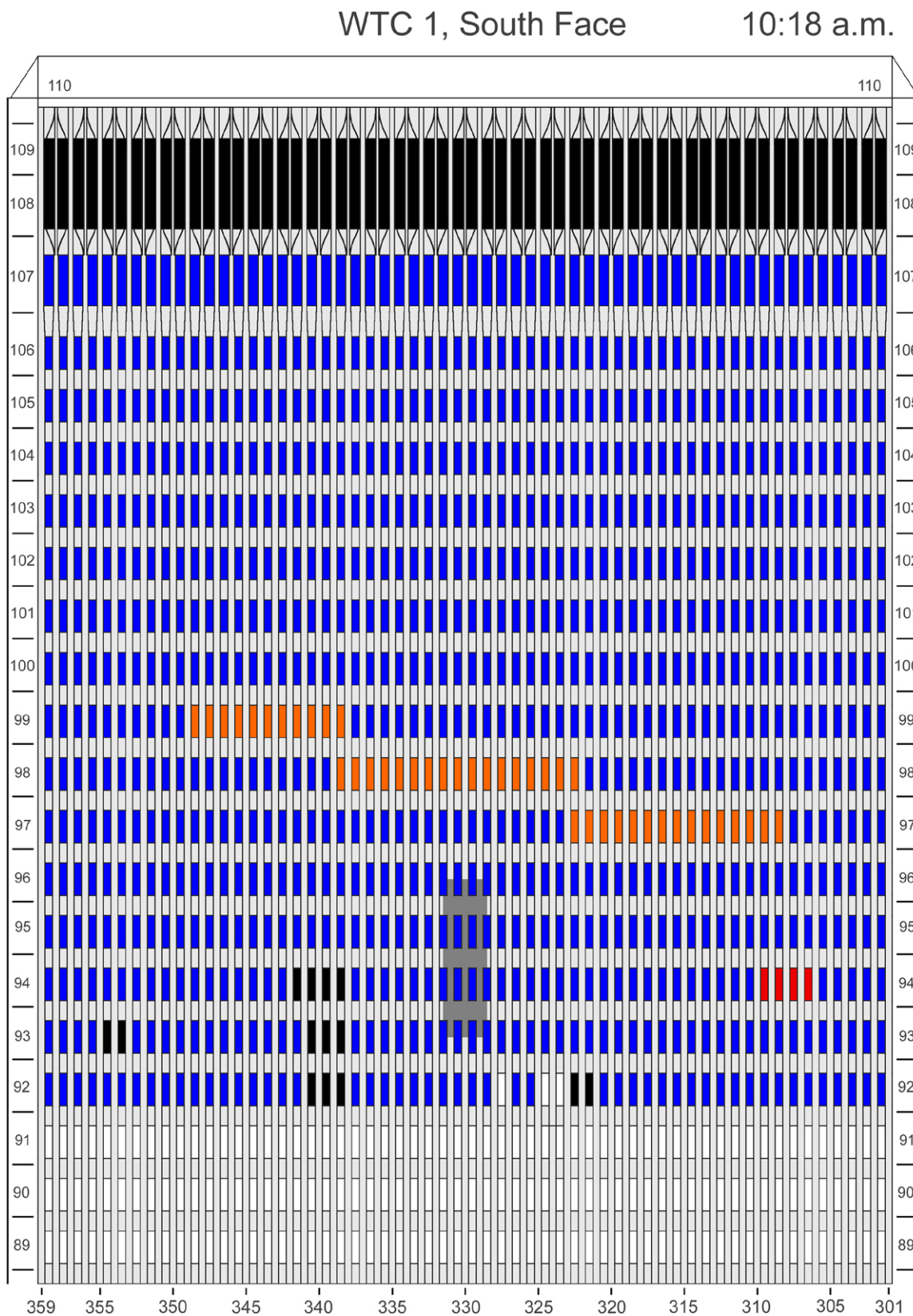


**Figure E-43. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:14 a.m. showing the condition of windows and locations of fires.**

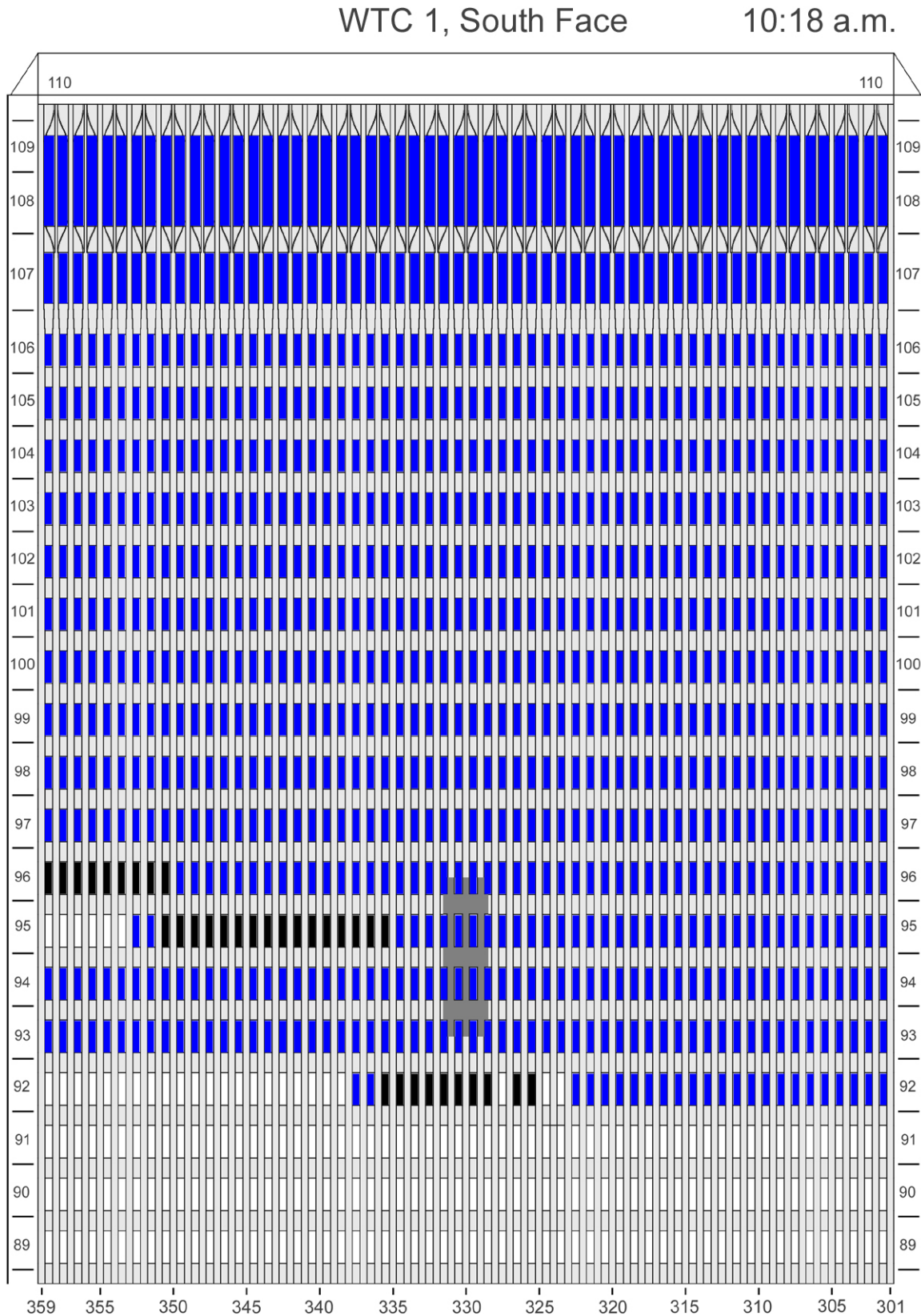


**Figure E-44. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:14 a.m. showing windows where smoke was observed and those that were hidden from view.**

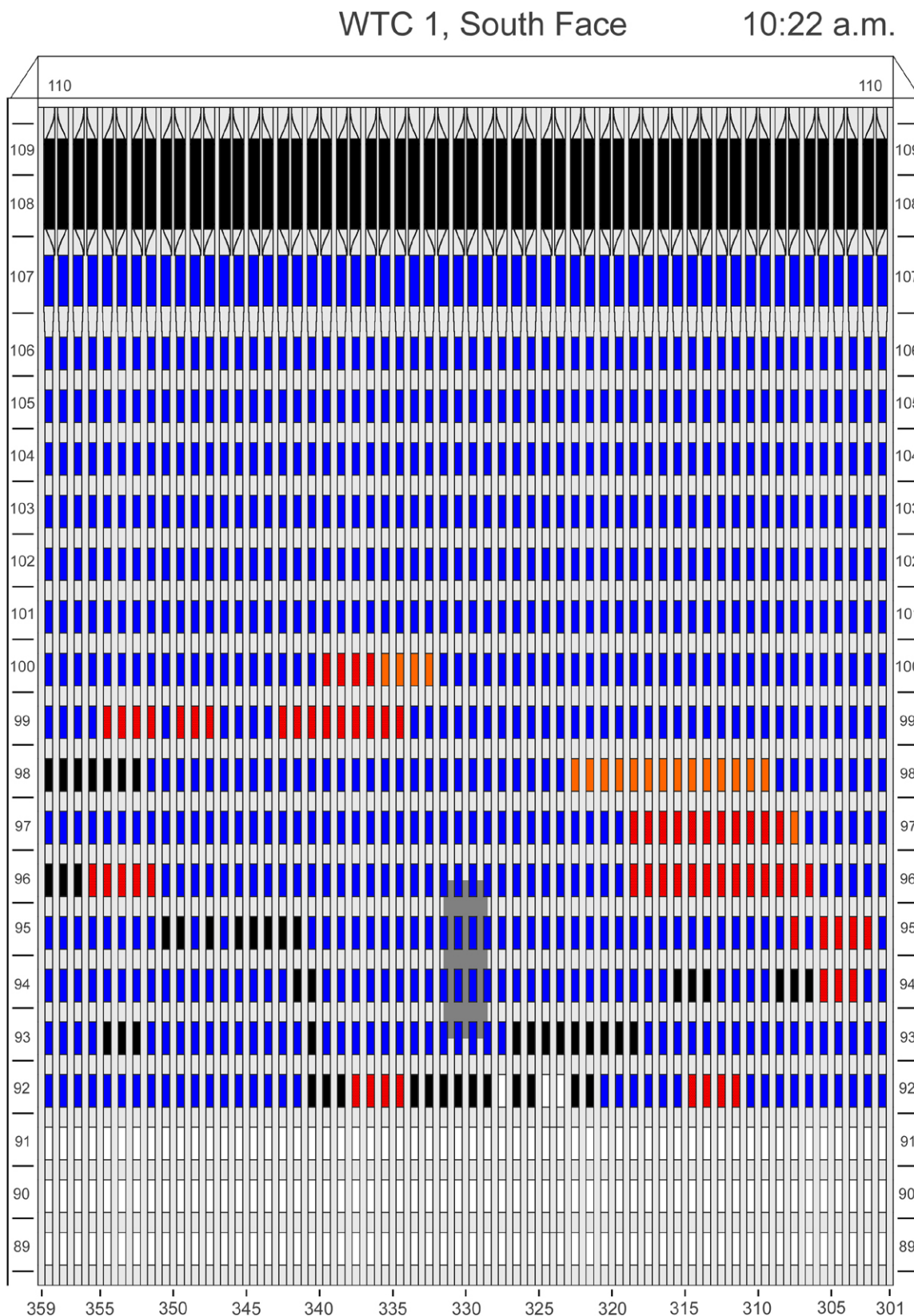


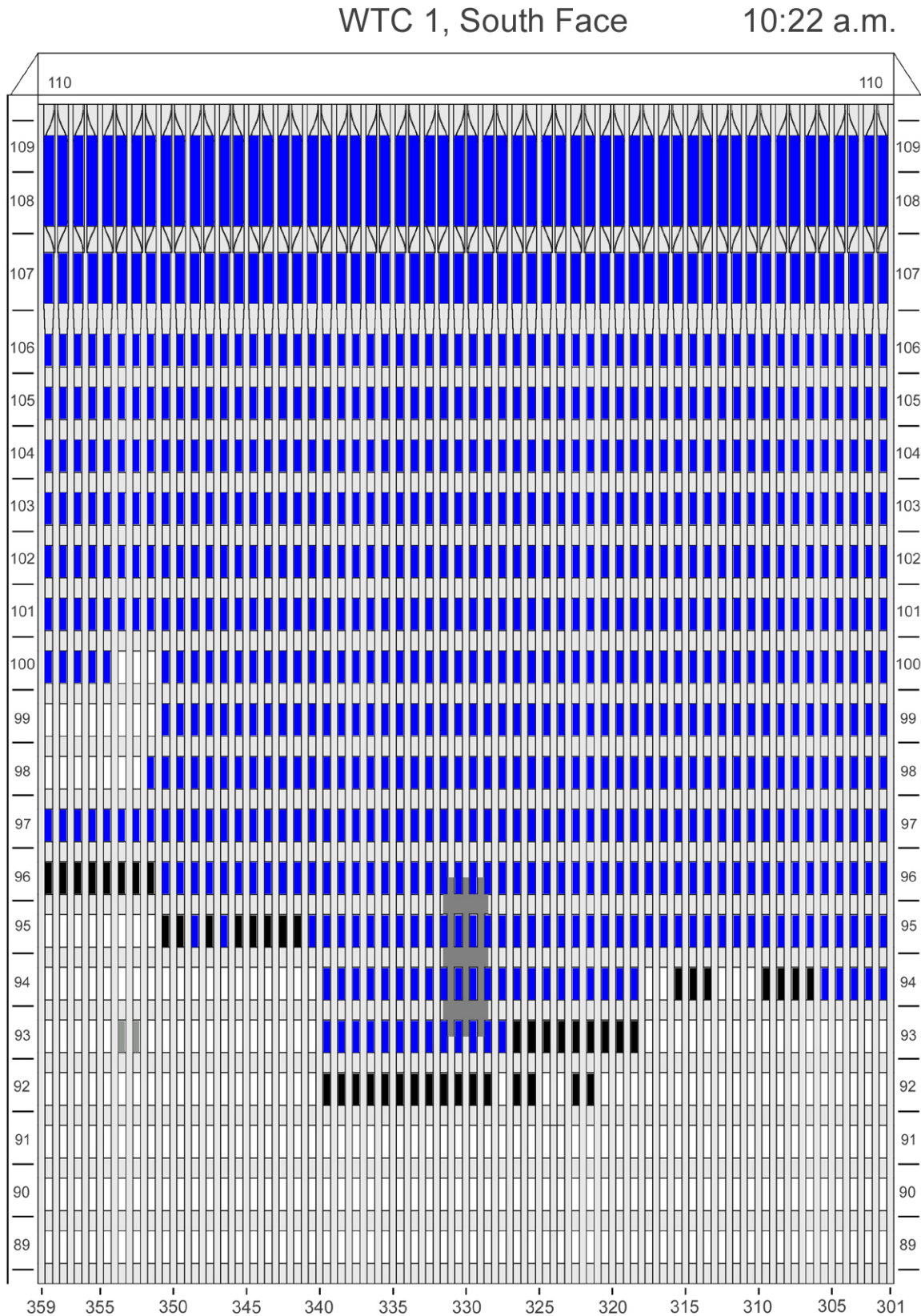


**Figure E-45. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:18 a.m. showing the condition of windows and locations of fires.**

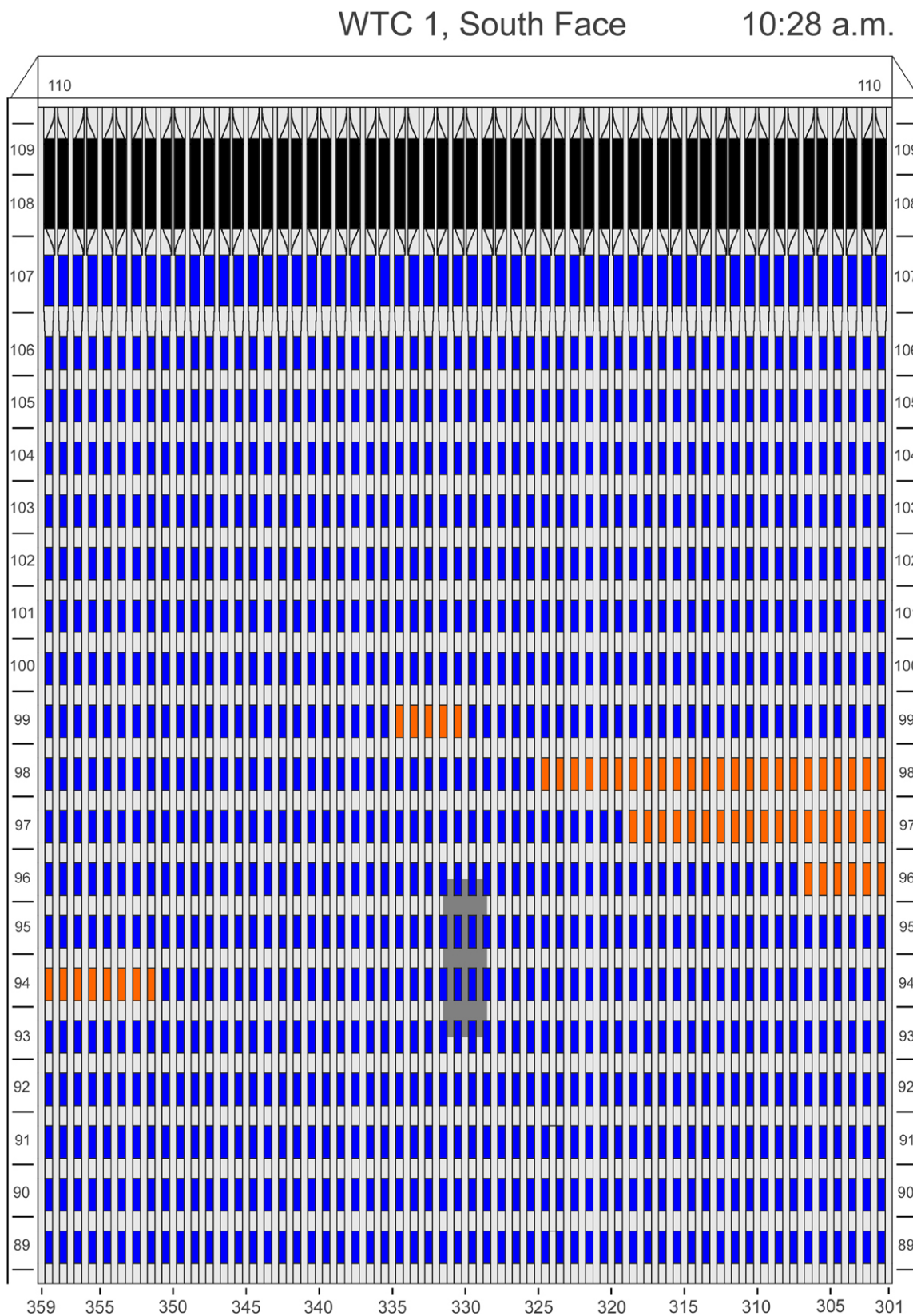


**Figure E-46. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:18 a.m. showing windows where smoke was observed and those that were hidden from view.**

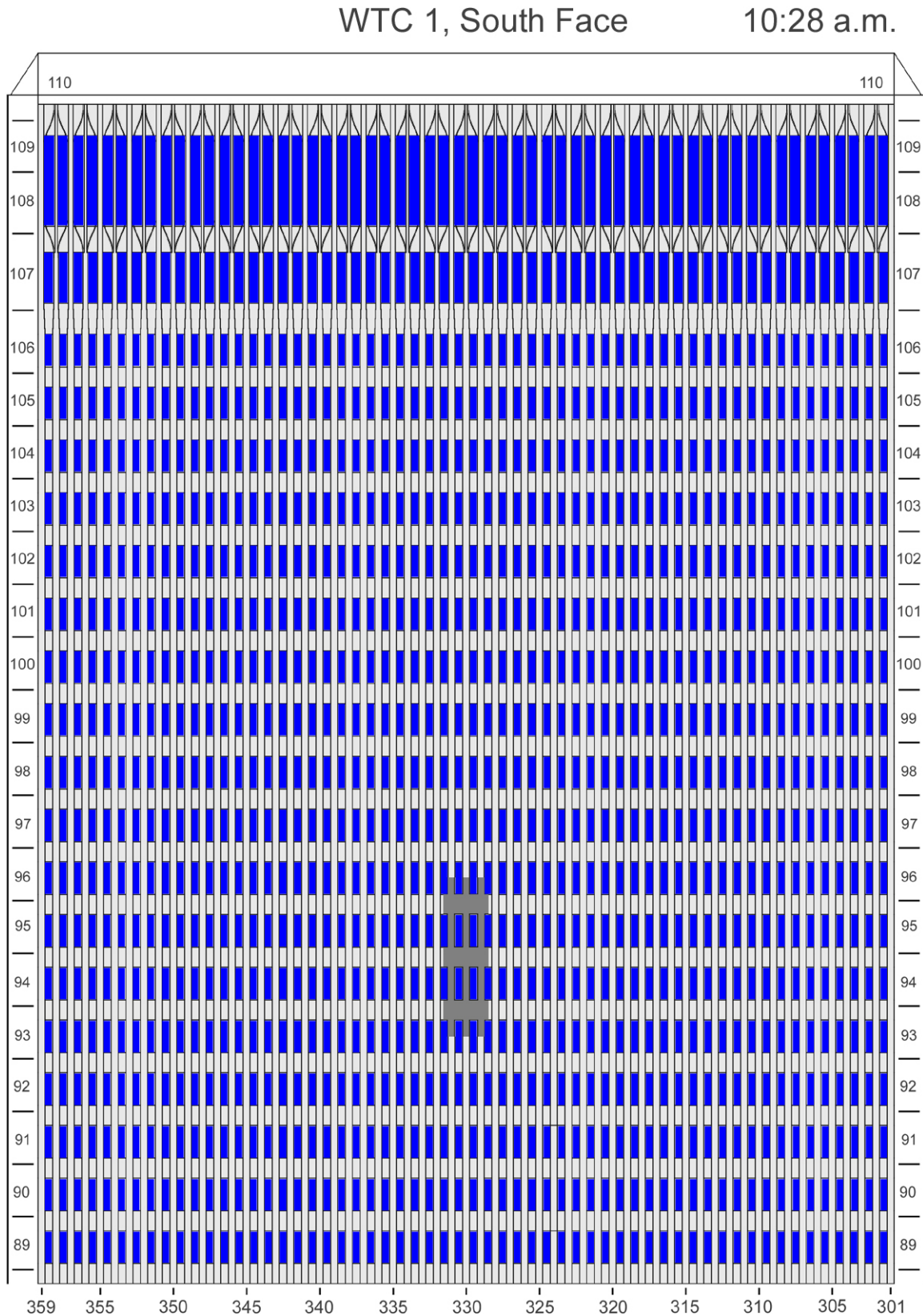




**Figure E- 48. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:22 a.m. showing windows where smoke was observed and those that were hidden from view.**

















**Figure E-50. Diagram of the south face of WTC 1 for floors 89 to 110 at 10:28 a.m. showing windows where smoke was observed and those that were hidden from view.**

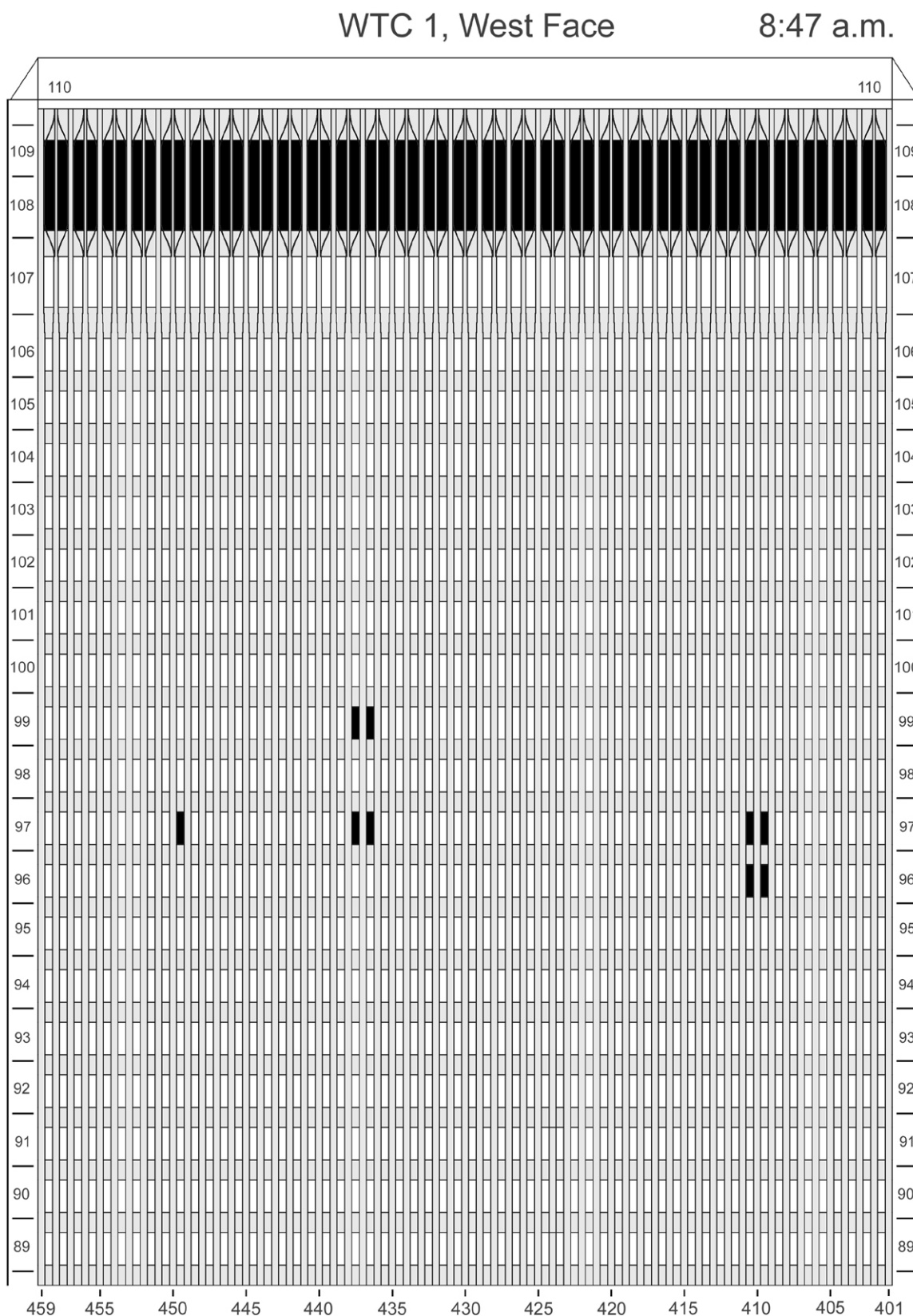
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## Appendix F

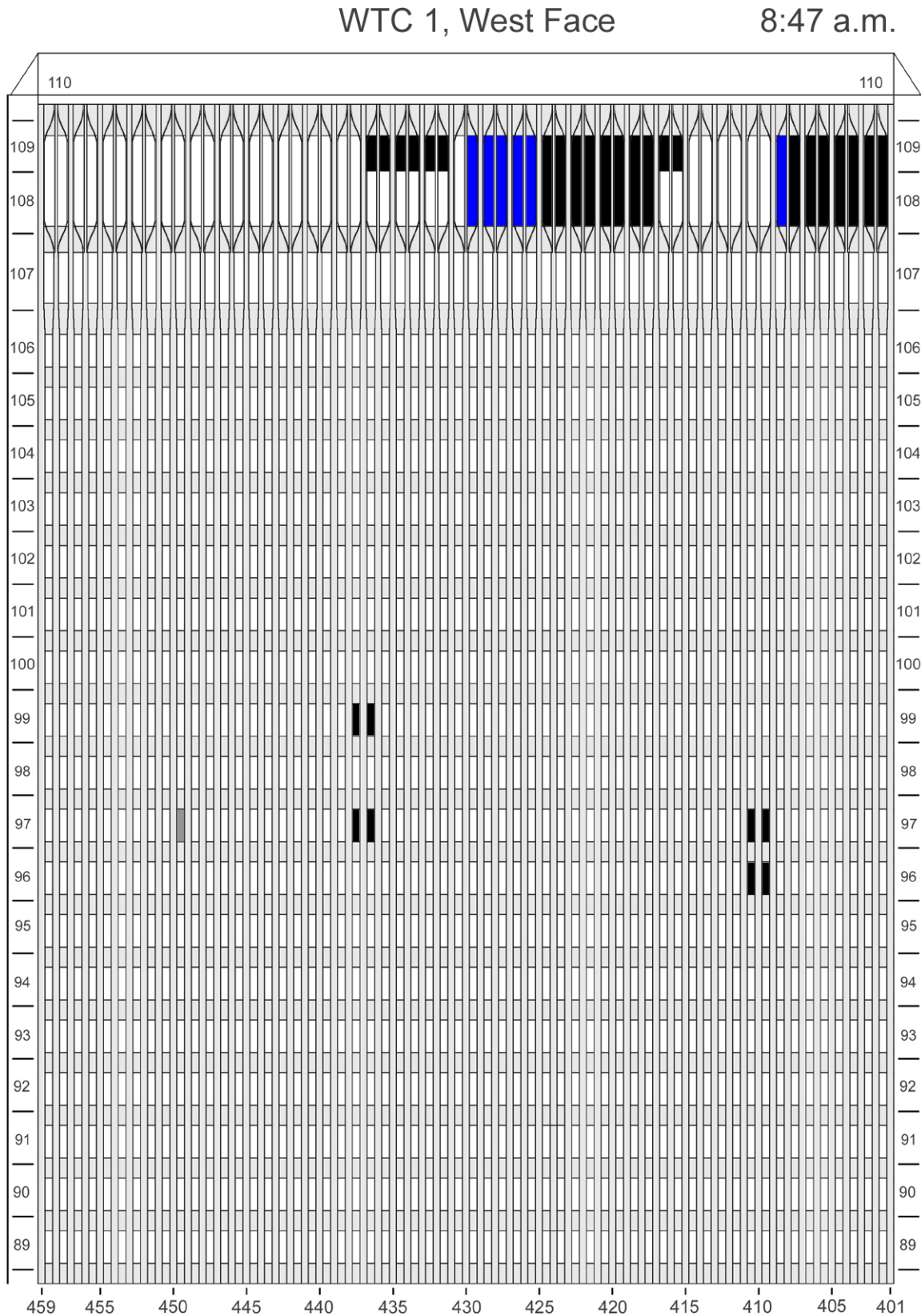
# WTC 1 WEST FACE COMBINED FIRE AND WINDOW CONDITION AND WINDOW SMOKE CONDITION

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This appendix provides visual representations of the data contained in data sheets describing observations of fire, smoke, and window condition on a window-by-window basis as a function of time for the west face of WTC 1. The data for window condition and fire observations are combined into single representations, with the data for fire taking precedence. Observations are represented using the key provided in Figure 5-1 as follows:  - window glass in place,  - window open,  - spot fire,  - fire visible inside,  - external flaming, and  - not visible. The data for smoke are shown in separate figures using the key from Figure 5-1 as follows:  - no smoke visible,  - light smoke,  - heavy smoke, and  - not visible. For a given time, the window condition and fire data are shown first.

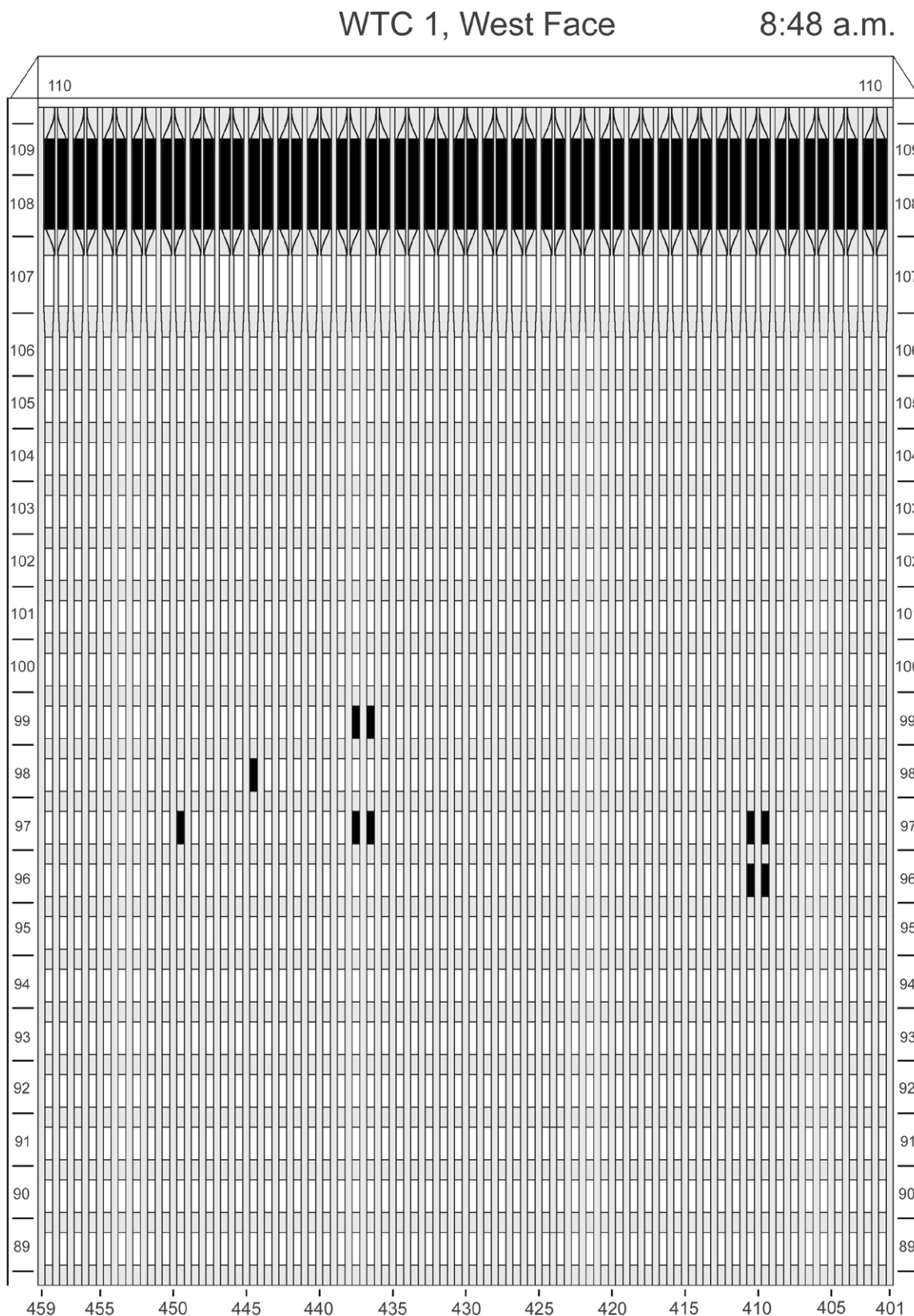


**Figure F-1. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:47 a.m. showing the condition of windows and locations of fires.**

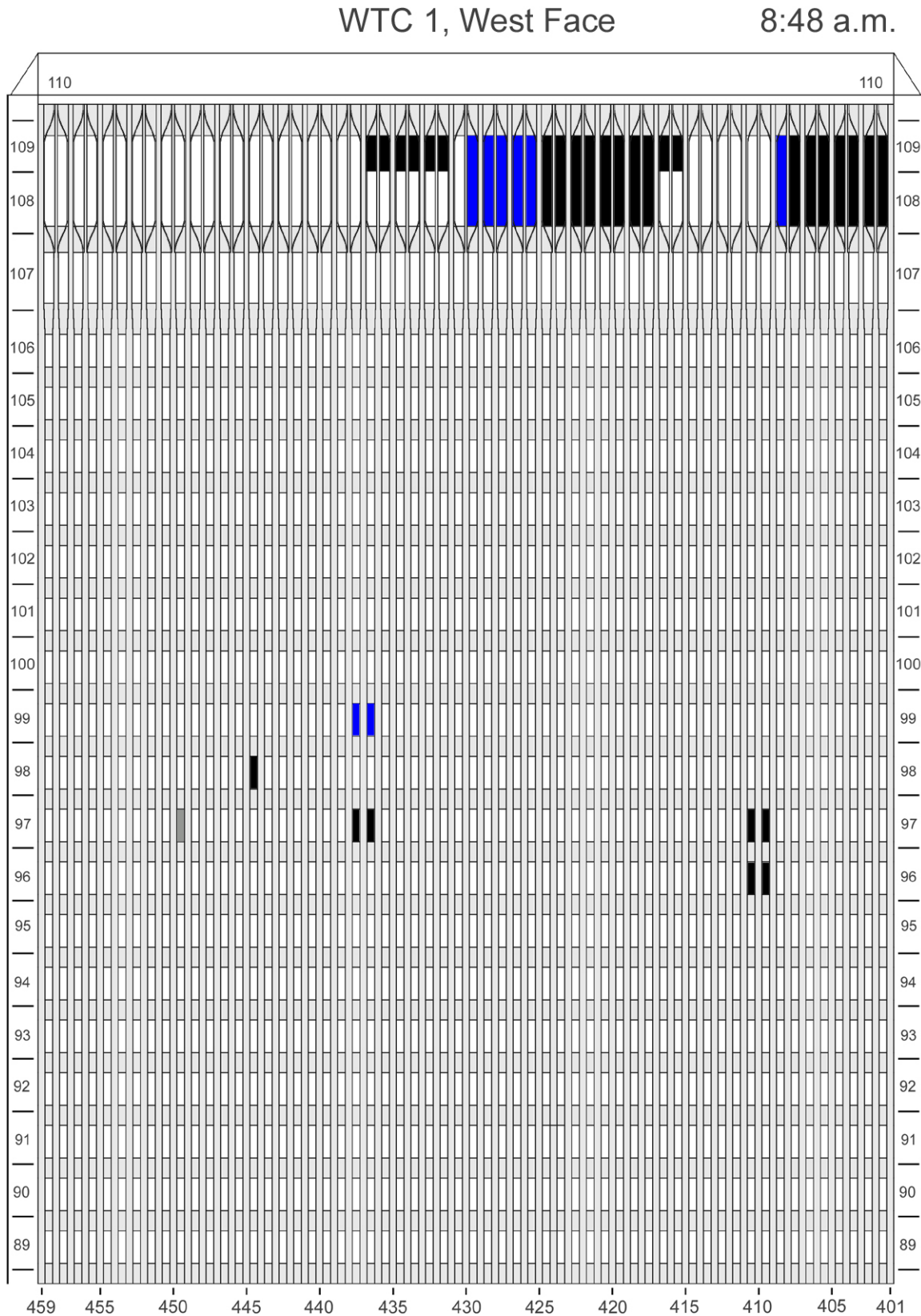


**Figure F-2. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:47 a.m. showing windows where smoke was observed and those that were hidden from view.**

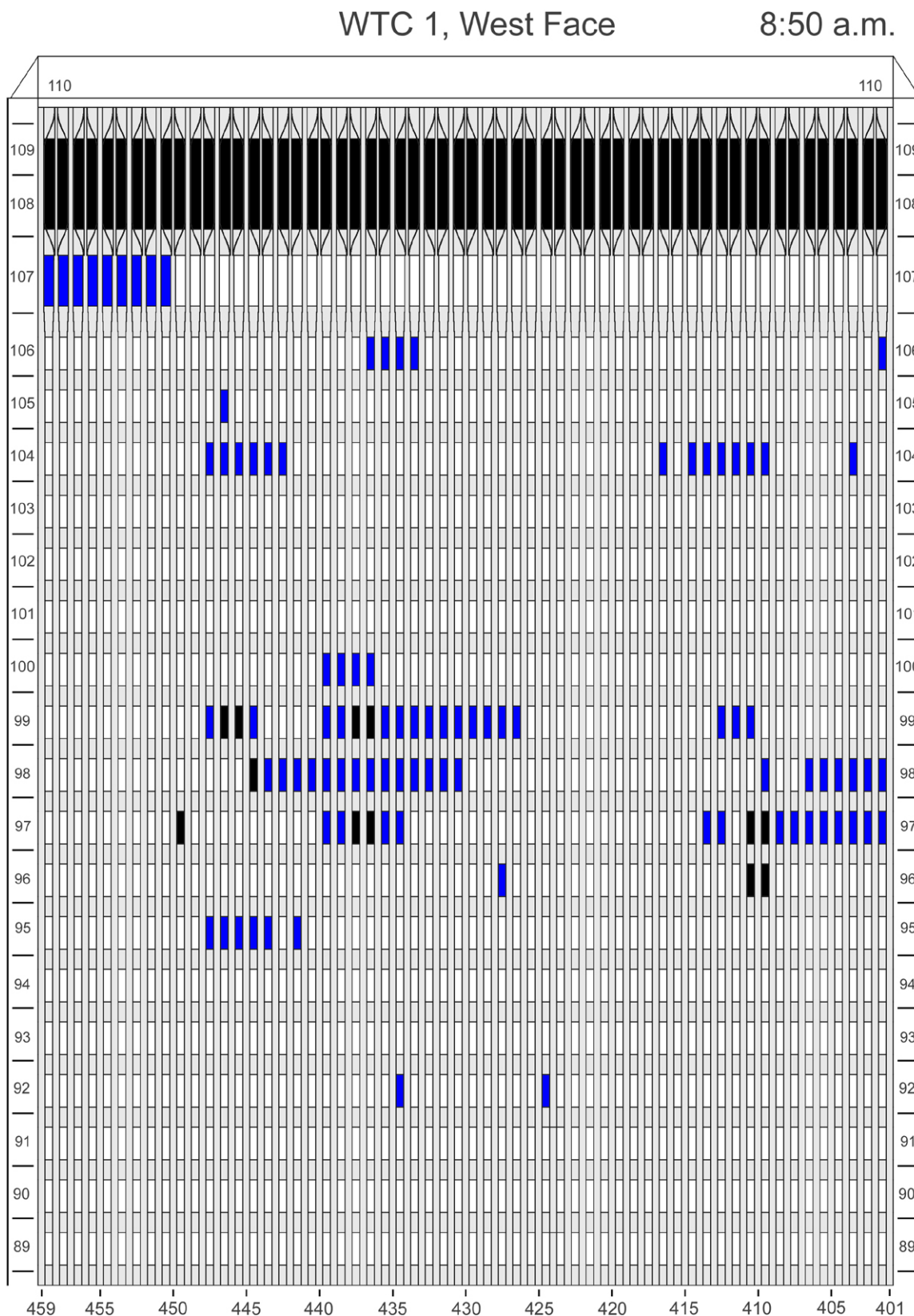




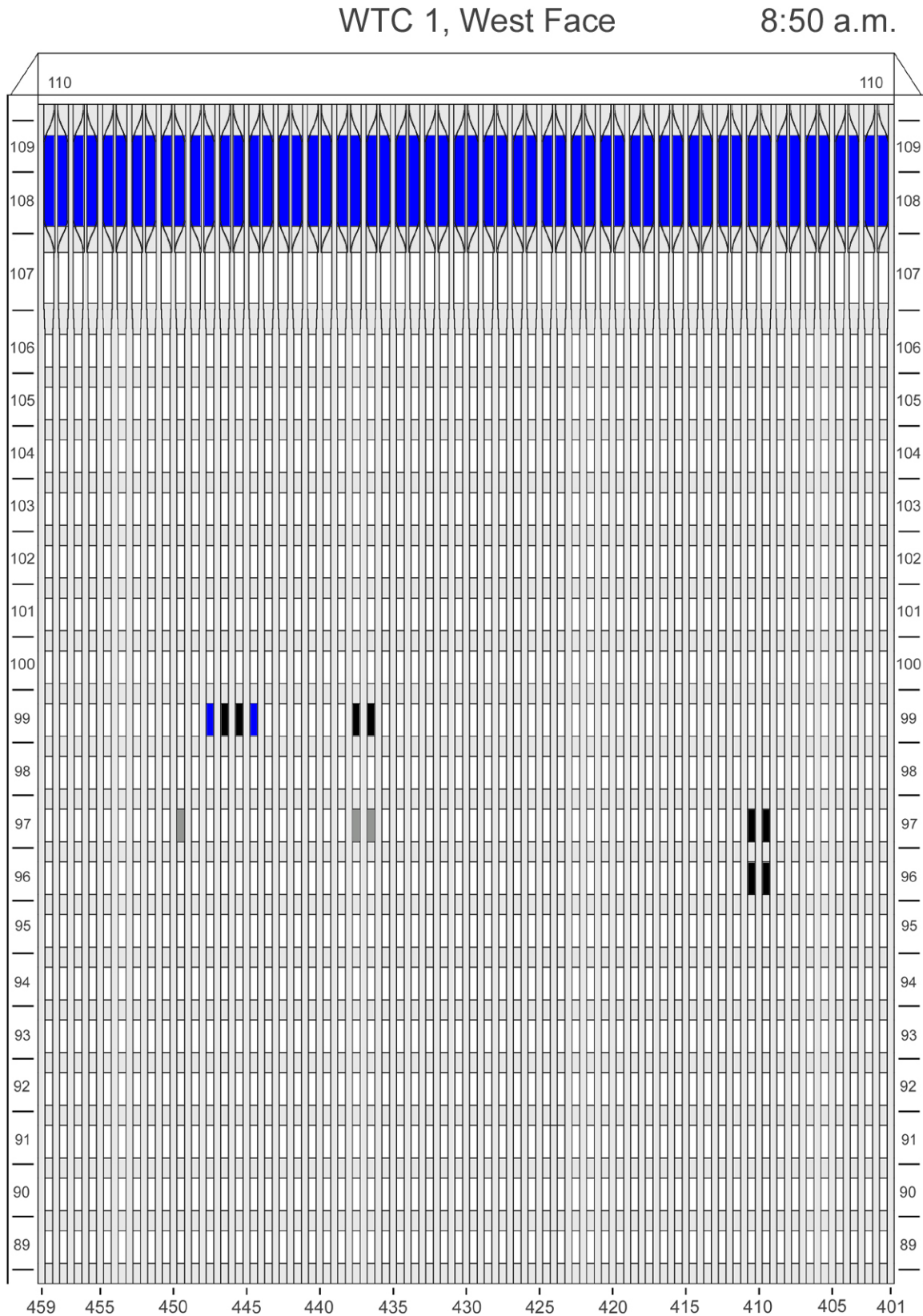
**Figure F-3. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:48 a.m. showing the condition of windows and locations of fires.**



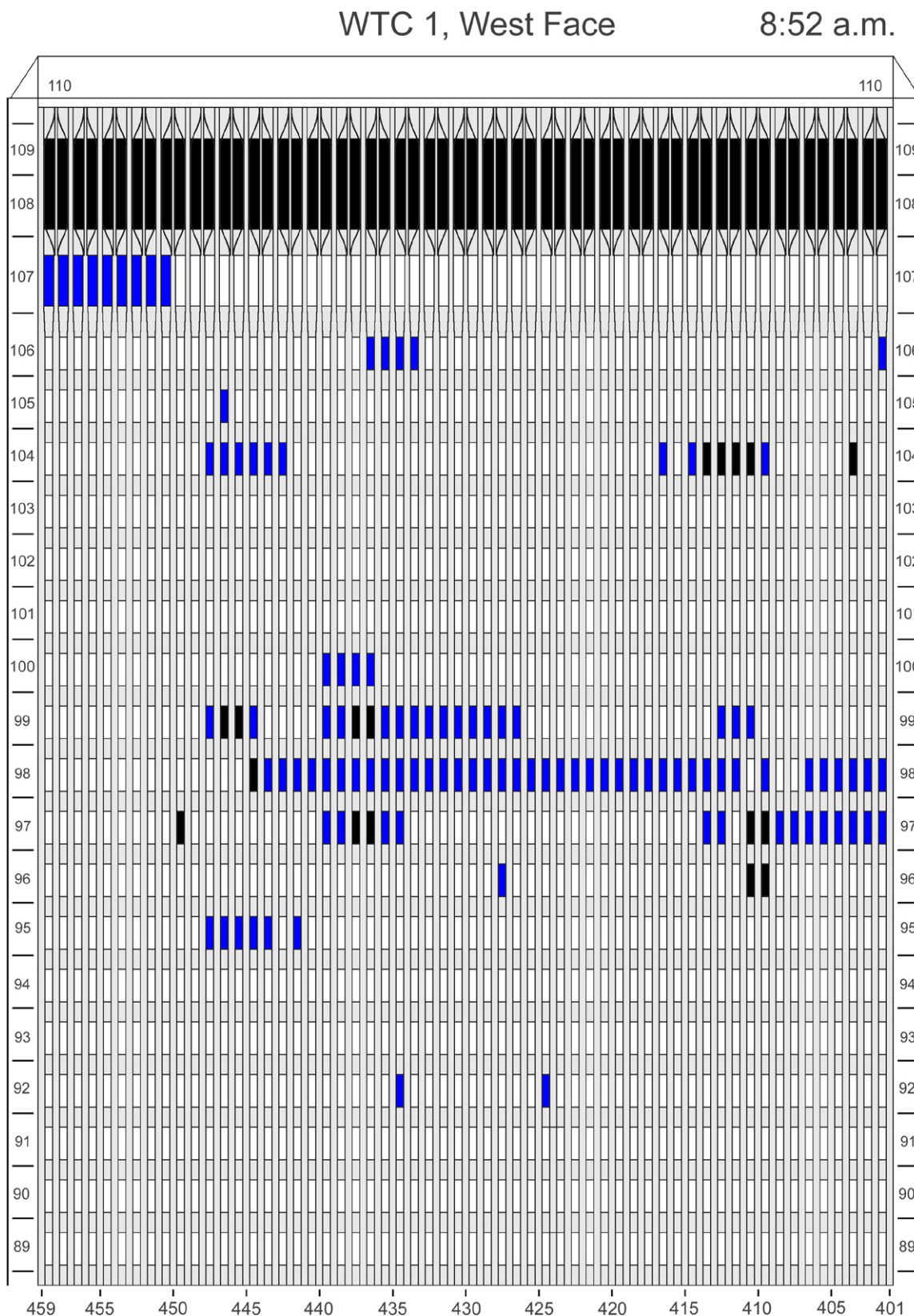
**Figure F-4. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:48 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure F-5. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:50 a.m. showing the condition of windows and locations of fires.**

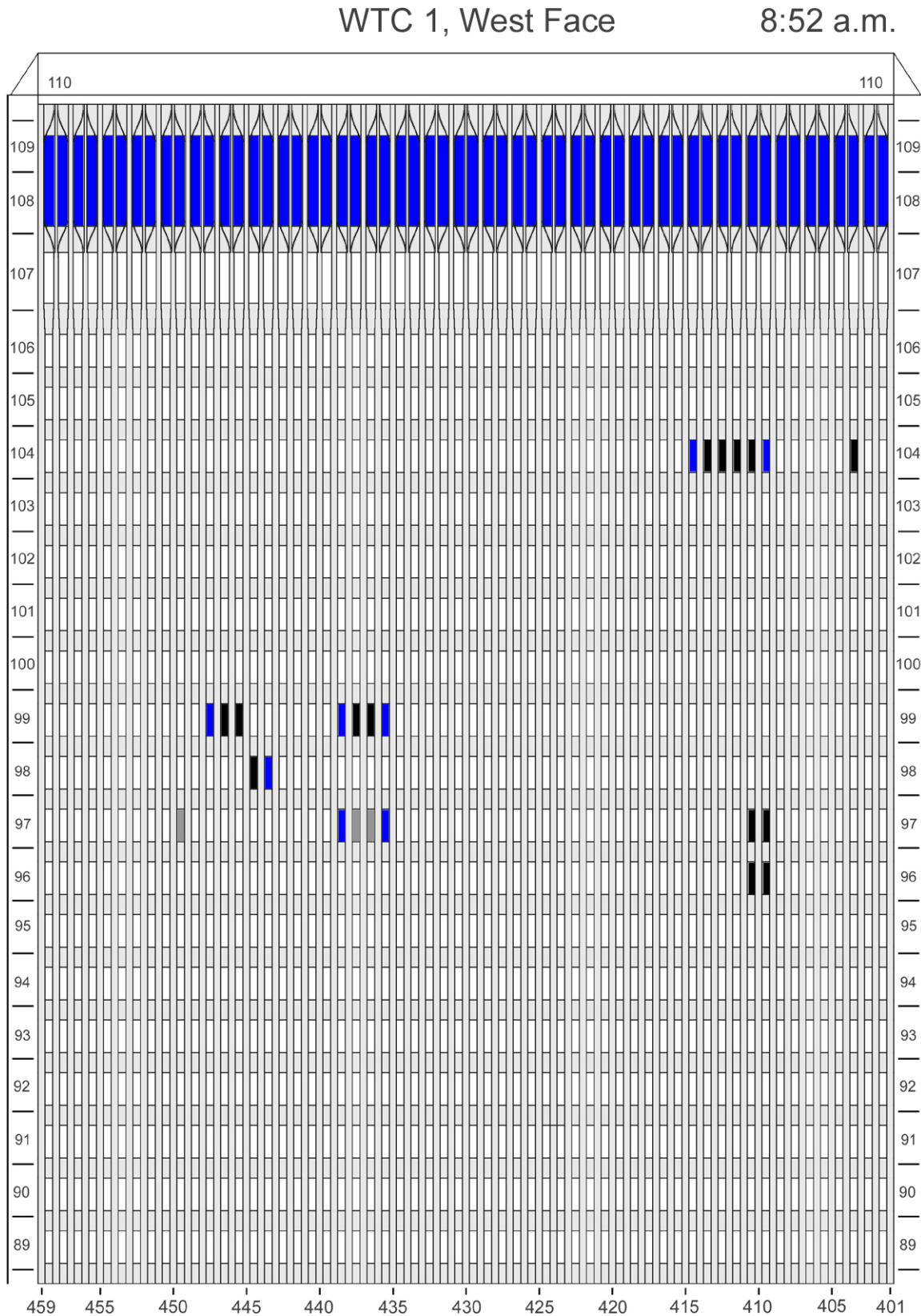


**Figure F-6. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:50 a.m. showing windows where smoke was observed and those that were hidden from view.**

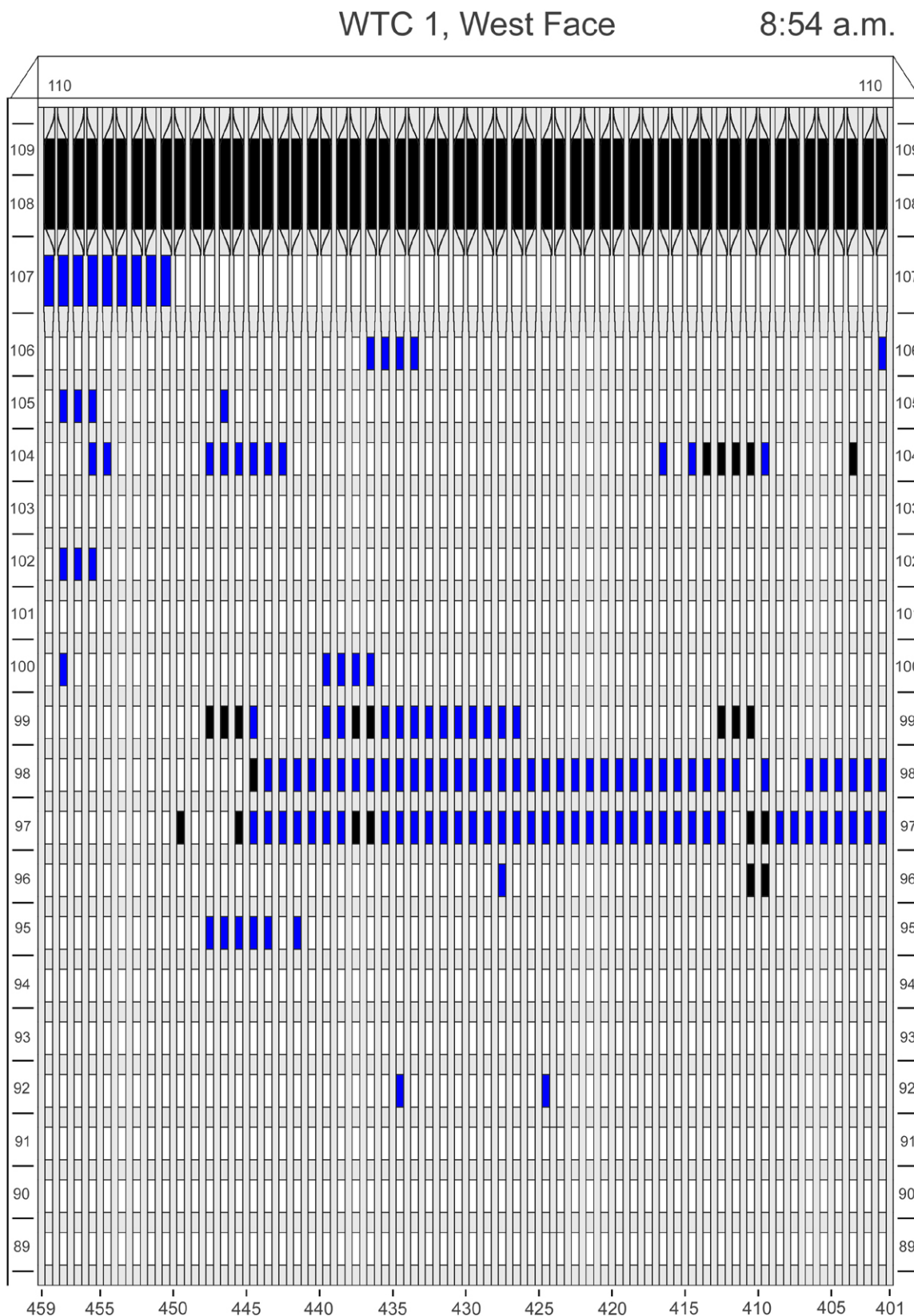


**Figure F-7. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:52 a.m. showing the condition of windows and locations of fires.**

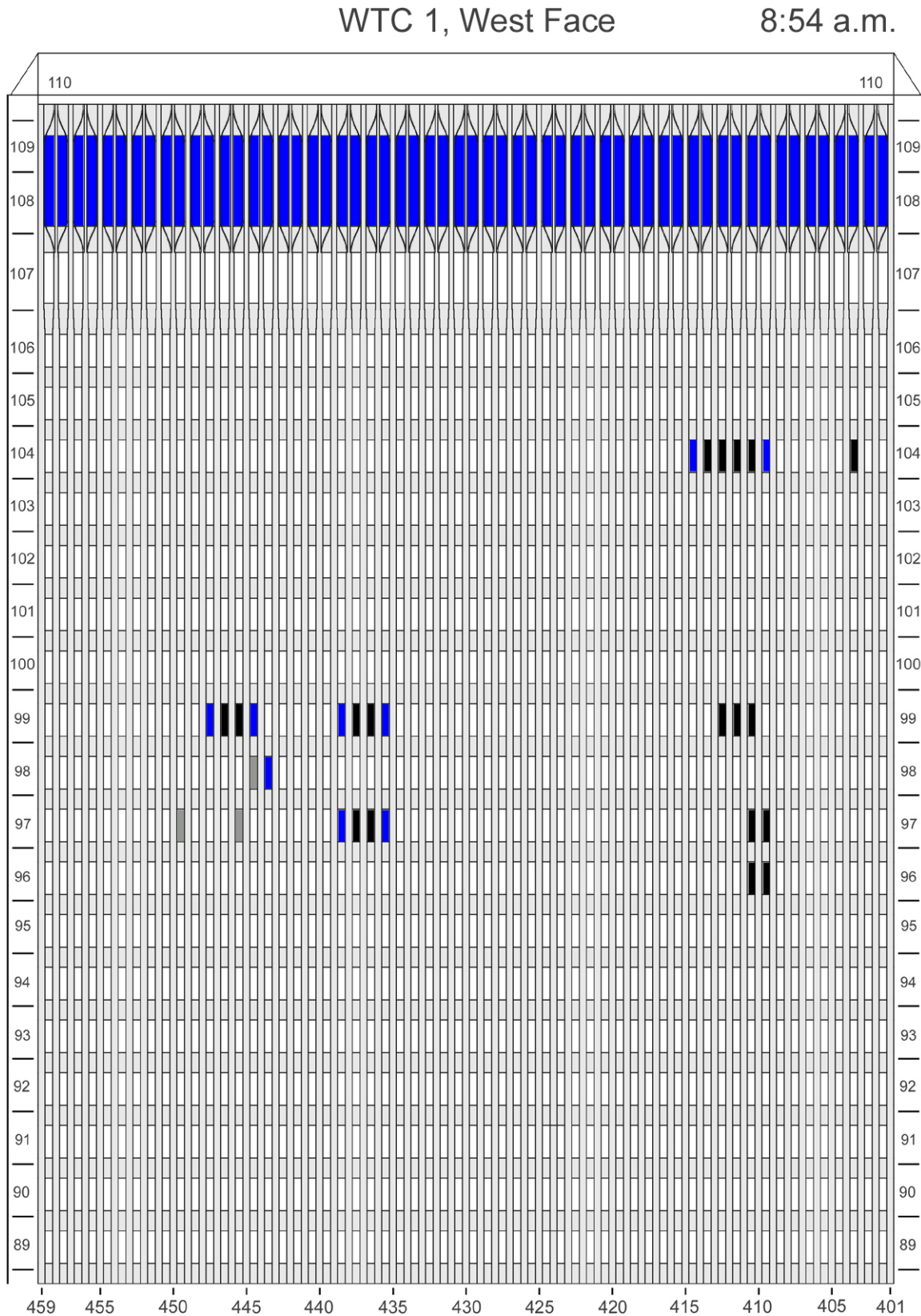




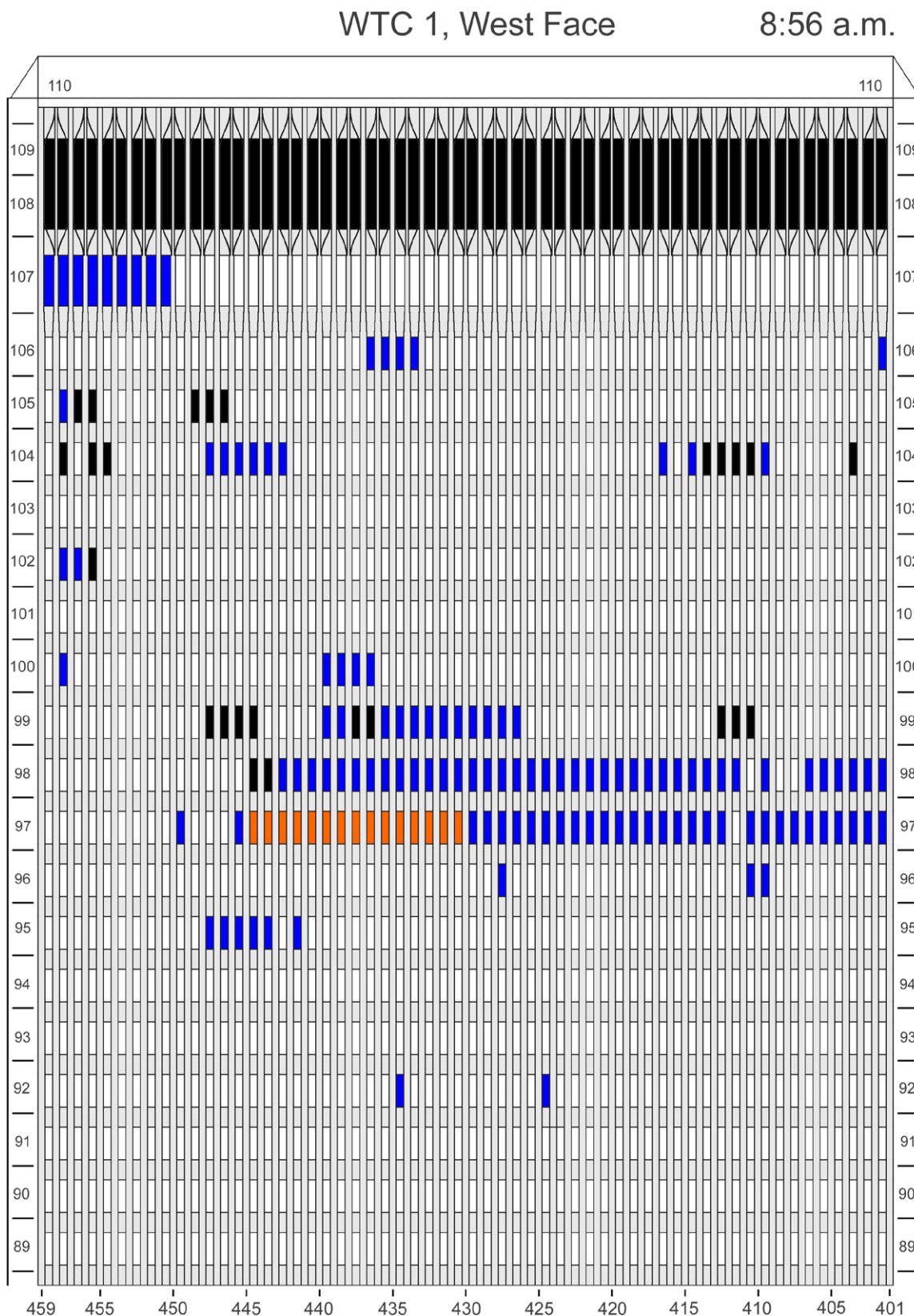
**Figure F-8. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:52 a.m. showing windows where smoke was observed and those that were hidden from view.**



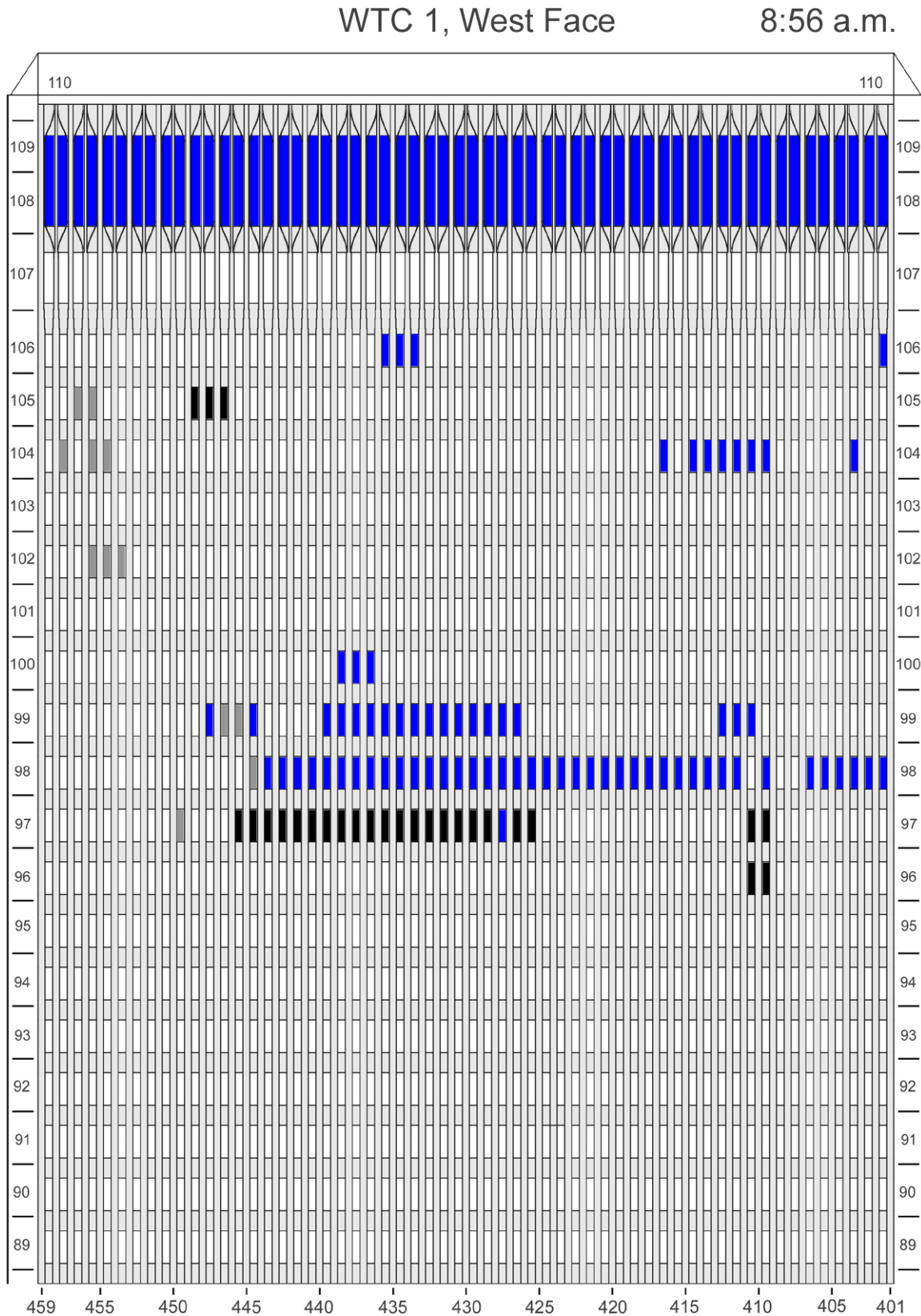
**Figure F-9. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:54 a.m. showing the condition of windows and locations of fires.**



**Figure F-10. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:54 a.m. showing windows where smoke was observed and those that were hidden from view.**

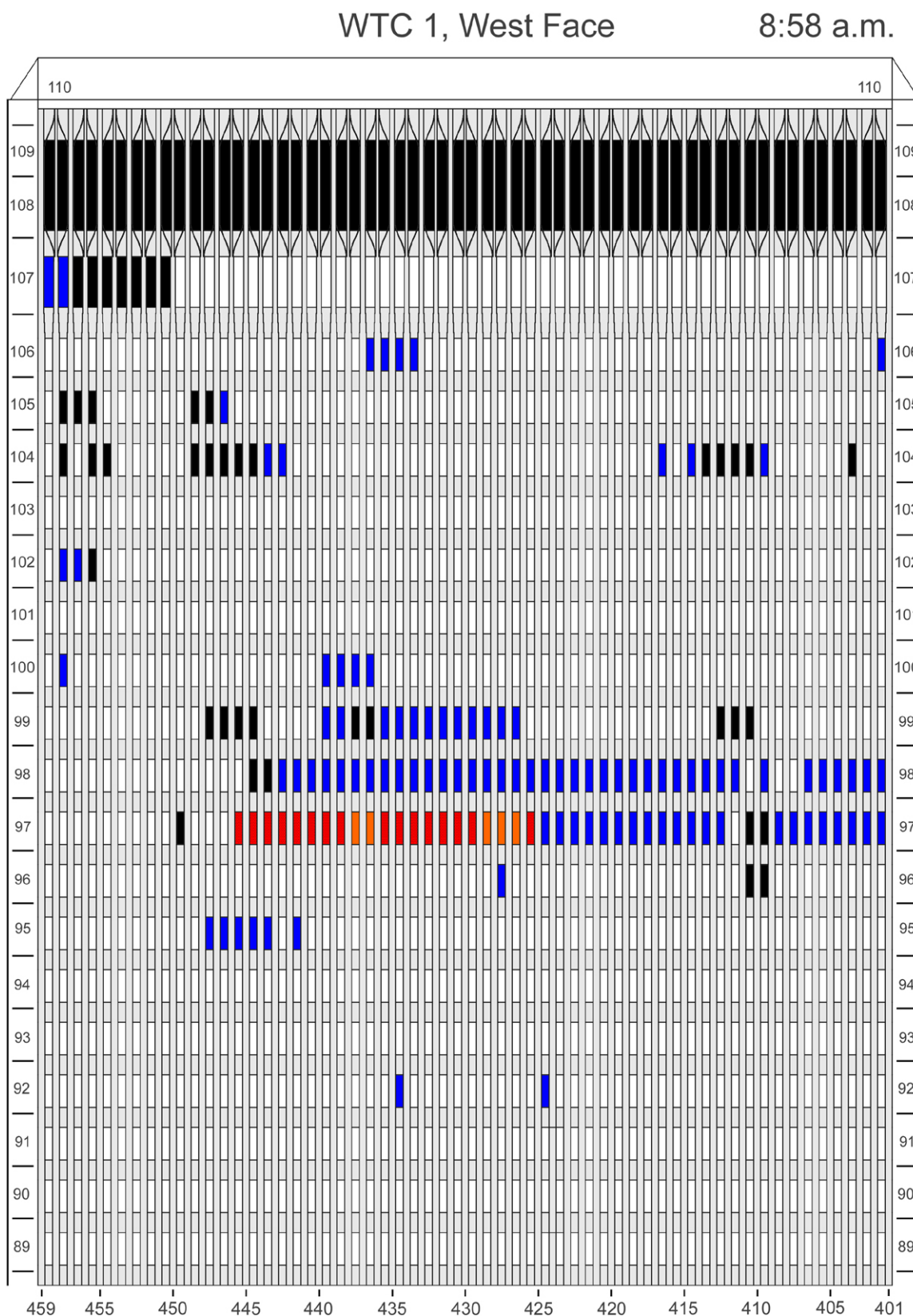


**Figure F-11. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:56 a.m showing the condition of windows and locations of fires.**

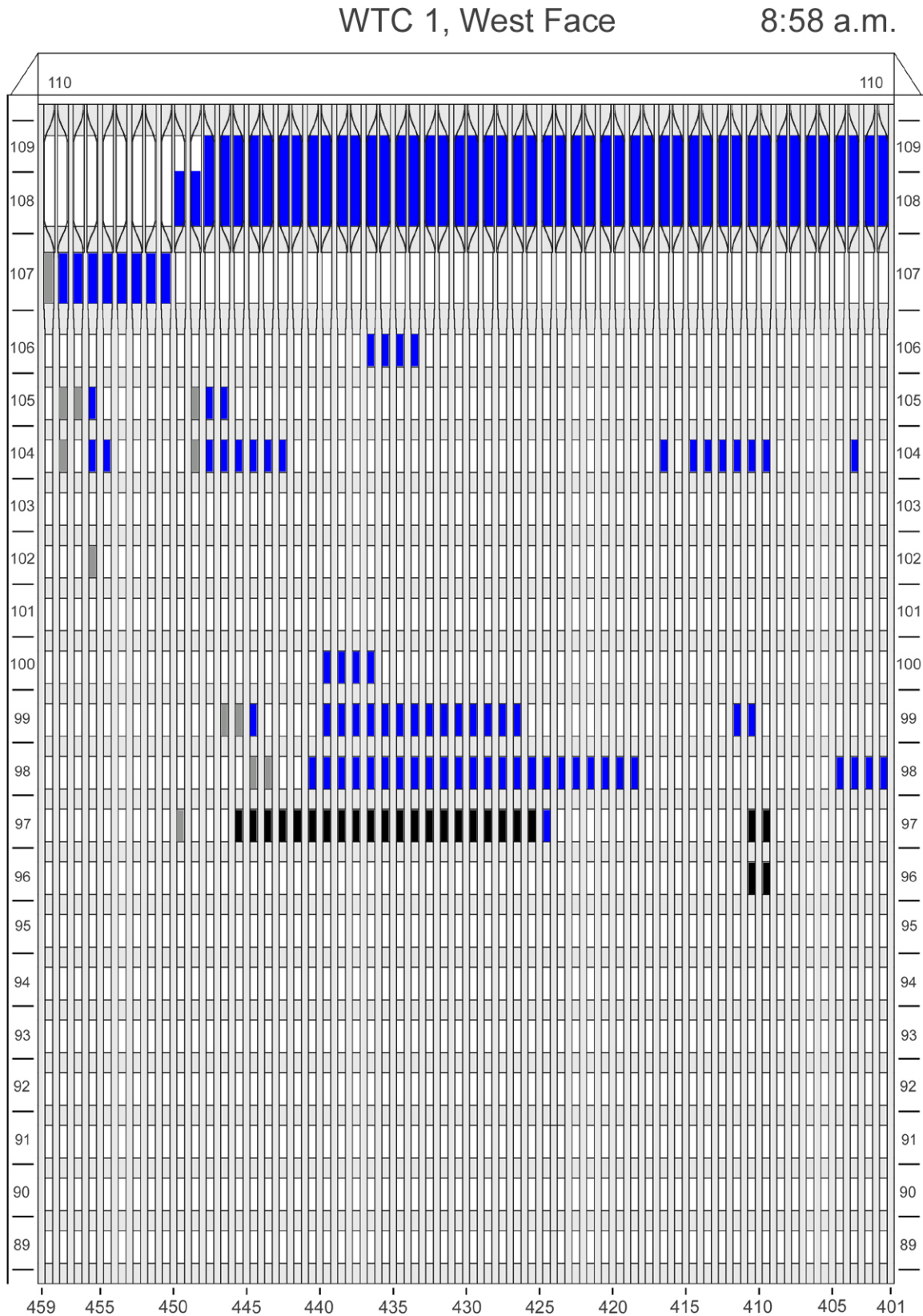


**Figure F-12. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:56 a.m. showing windows where smoke was observed and those that were hidden from view.**

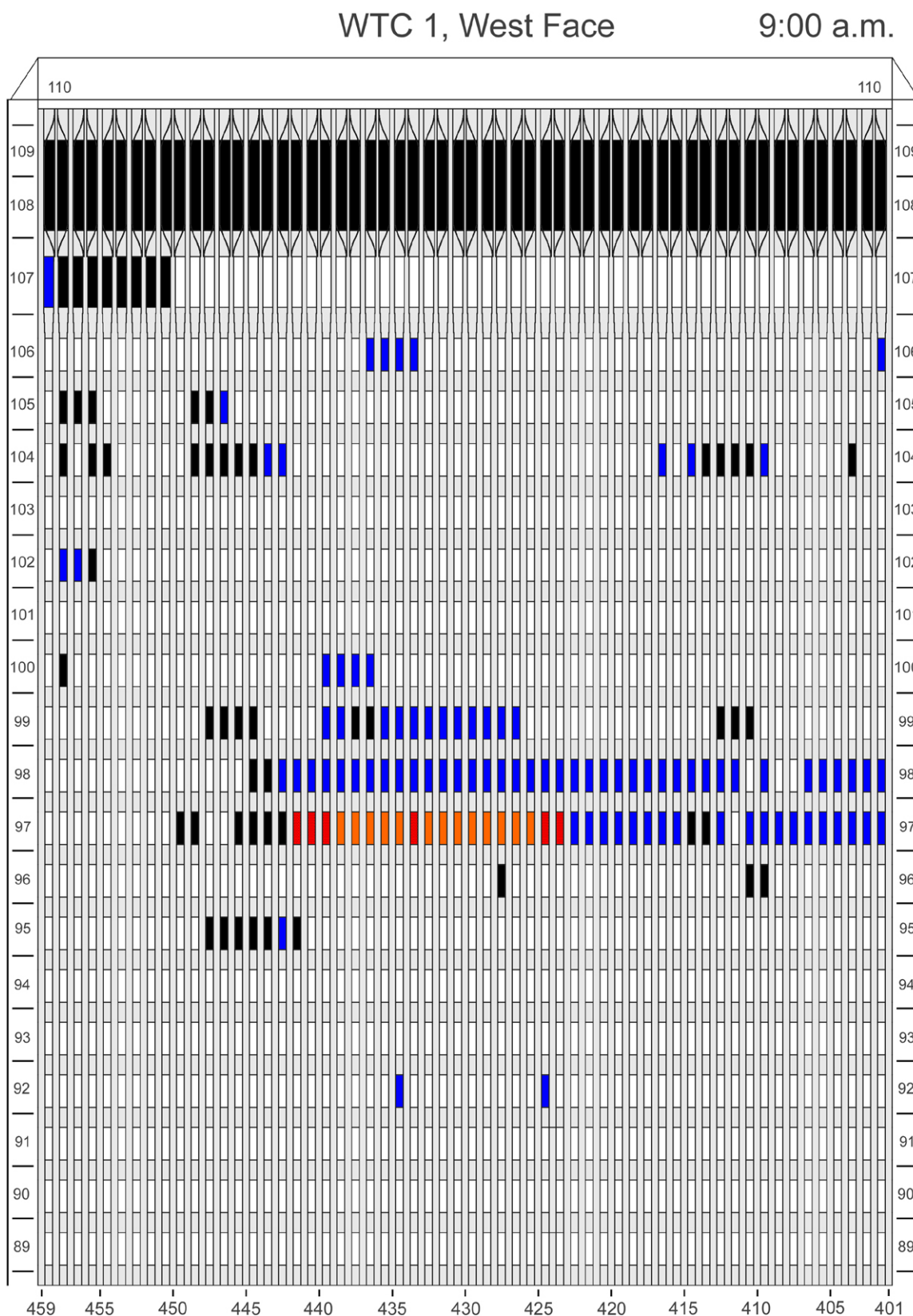


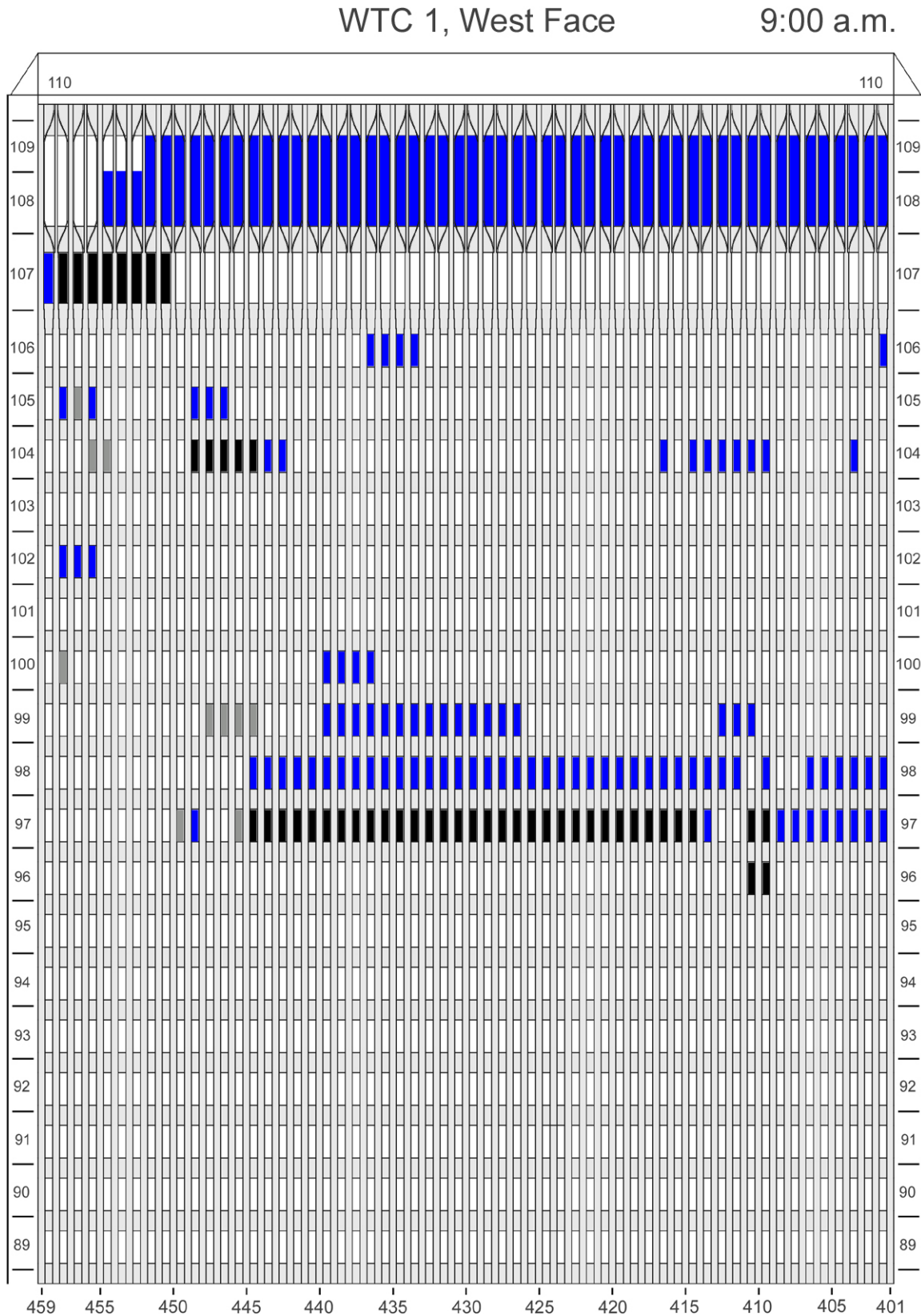


**Figure F-13. Diagram of the west face of WTC 1 showing the condition of windows and locations of fires for floors 89 to 110 at 8:58 a.m.**

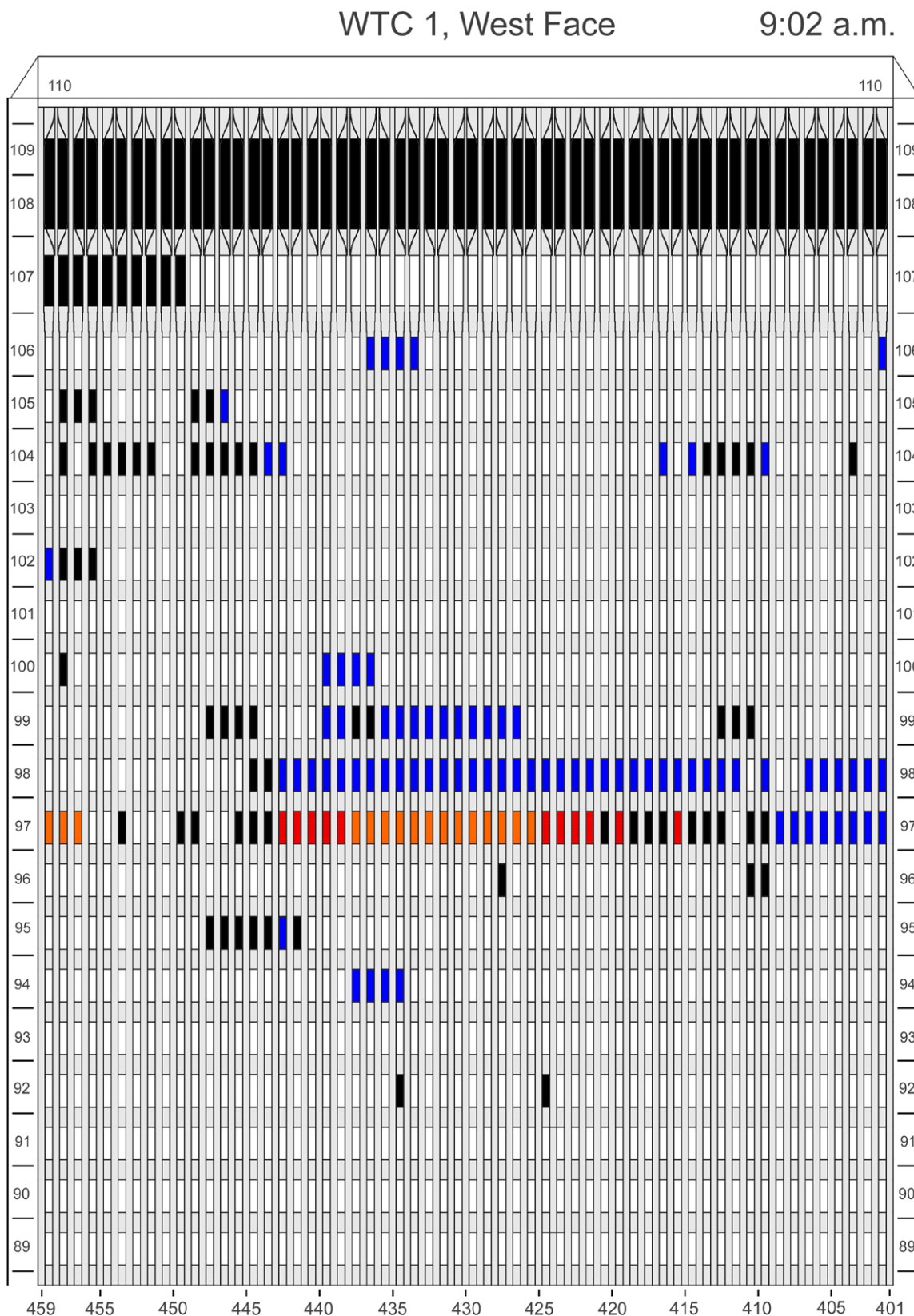


**Figure F-14. Diagram of the west face of WTC 1 for floors 89 to 110 at 8:58 a.m. showing windows where smoke was observed and those that were hidden from view.**



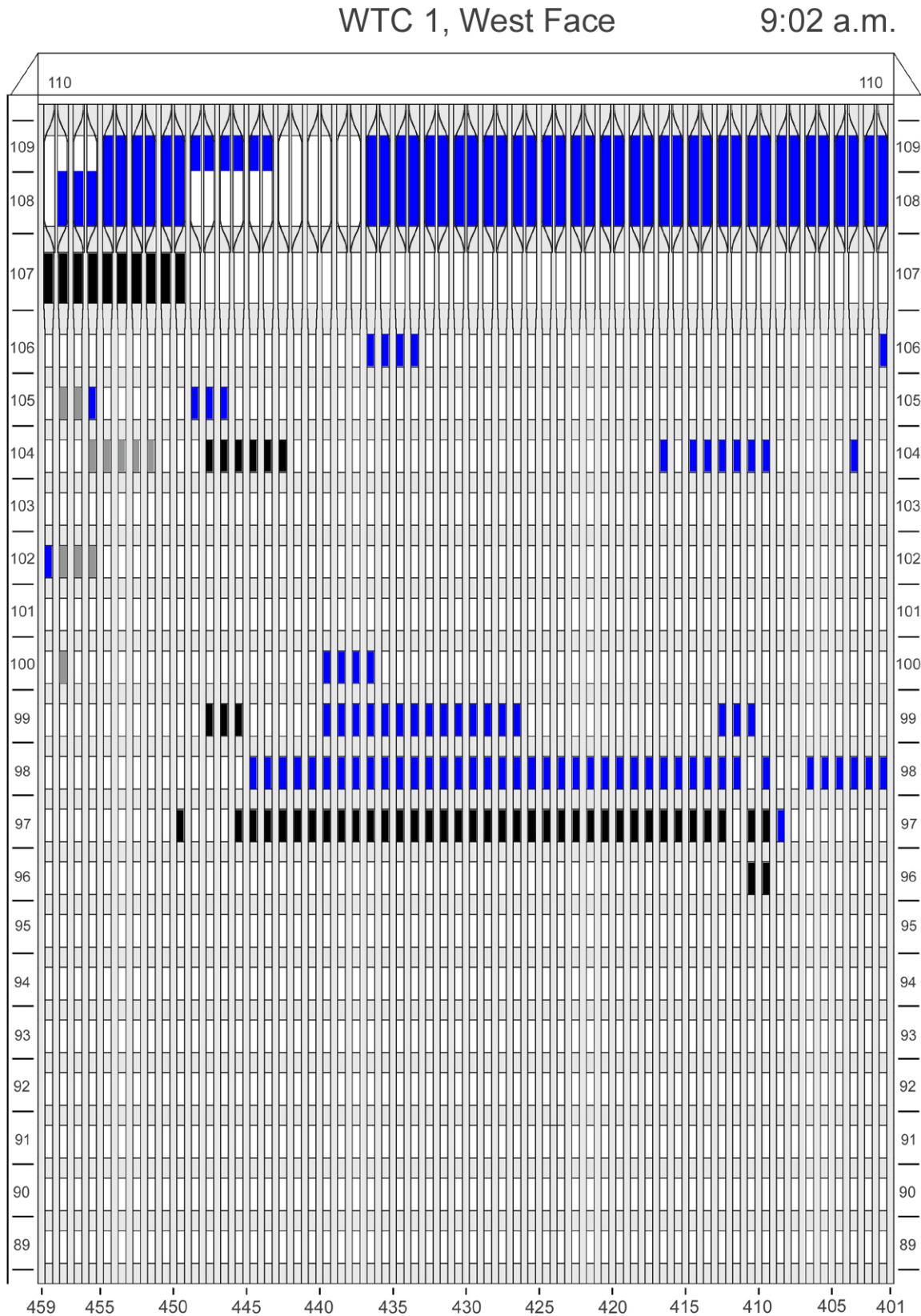


**Figure F-16. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:00 a.m. showing windows where smoke was observed and those that were hidden from view.**

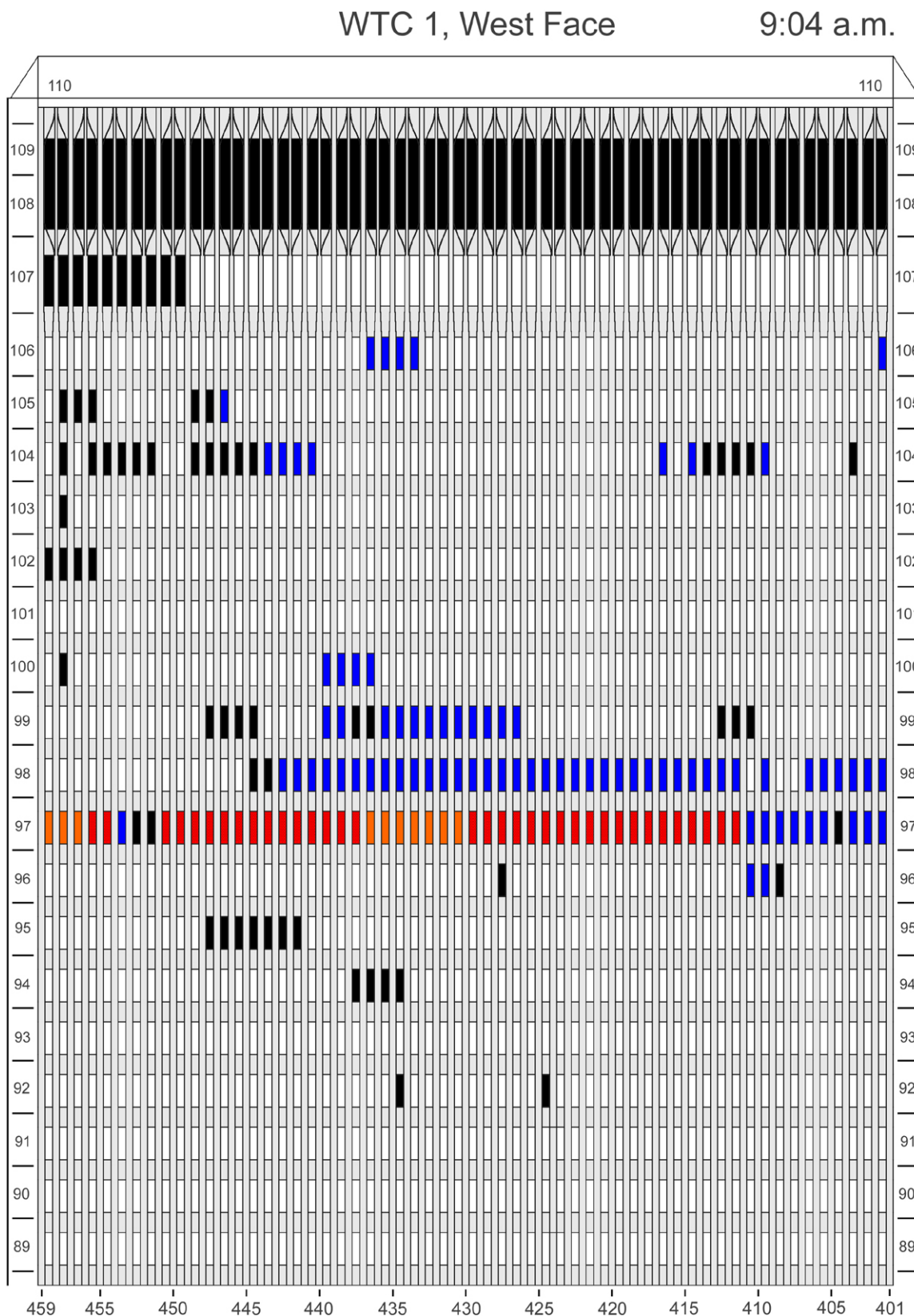


**Figure F-17. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:02 a.m. showing the condition of windows and locations of fires.**

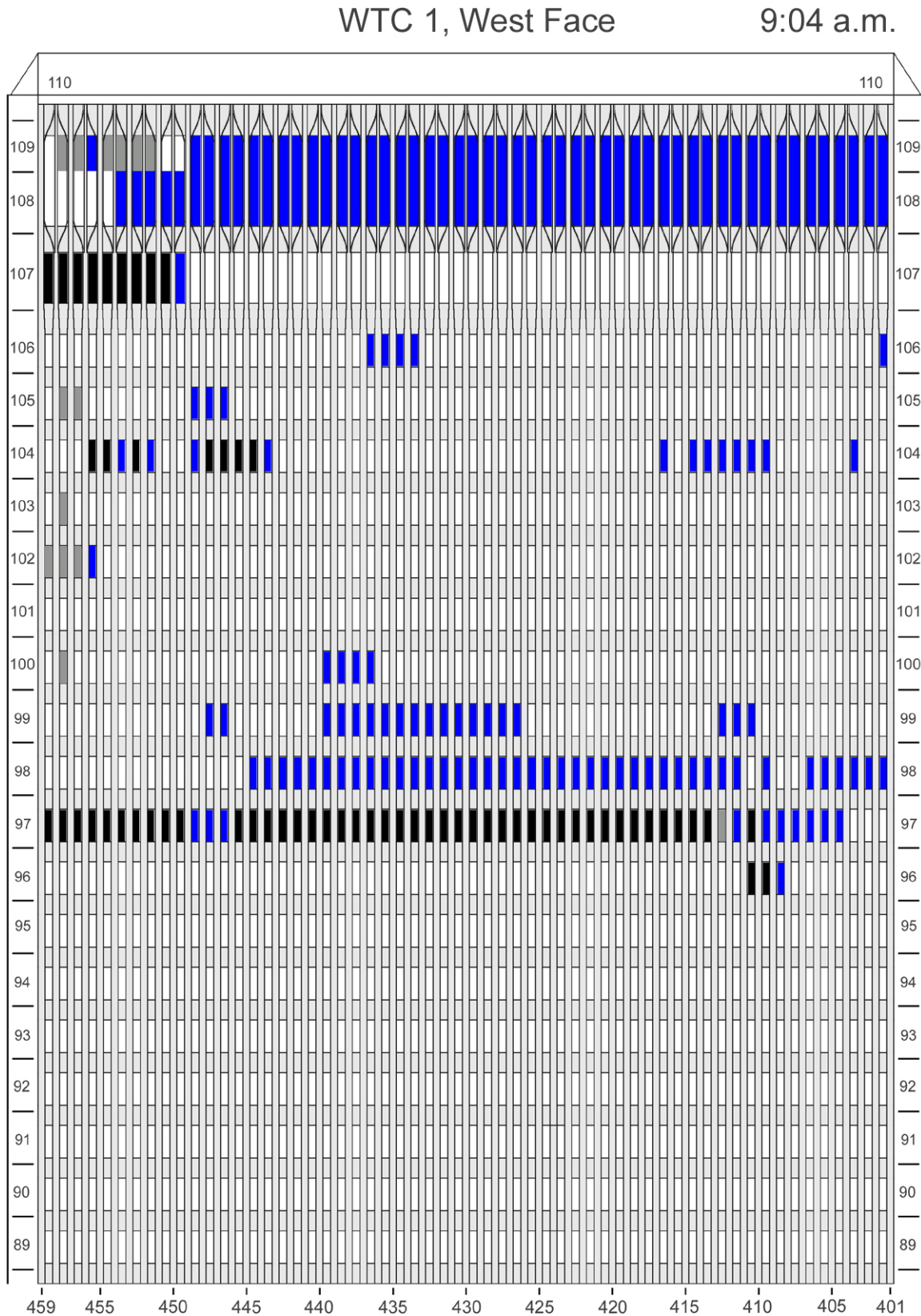




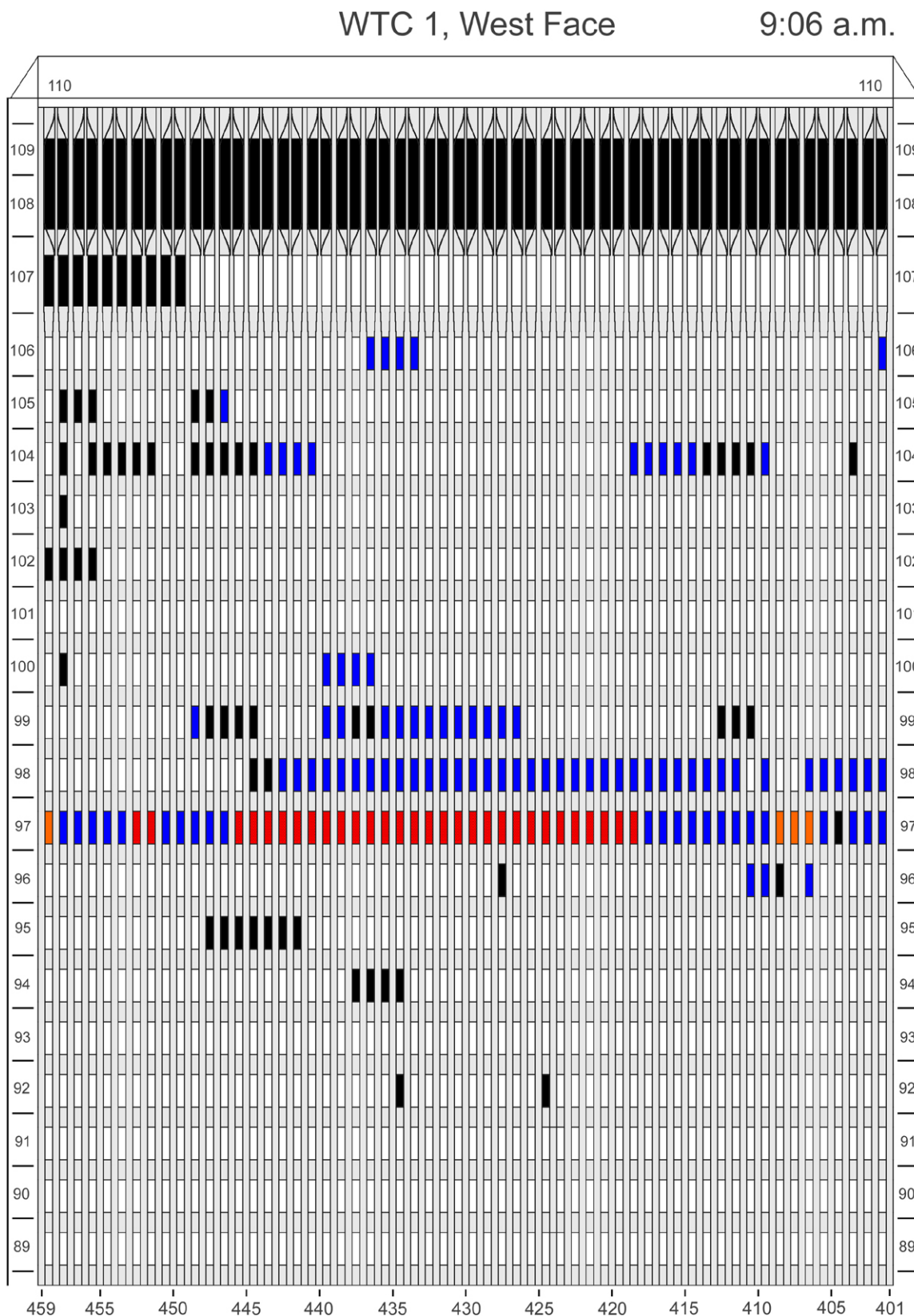
**Figure F-18. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:02 a.m. showing windows where smoke was observed and those that were hidden from view.**



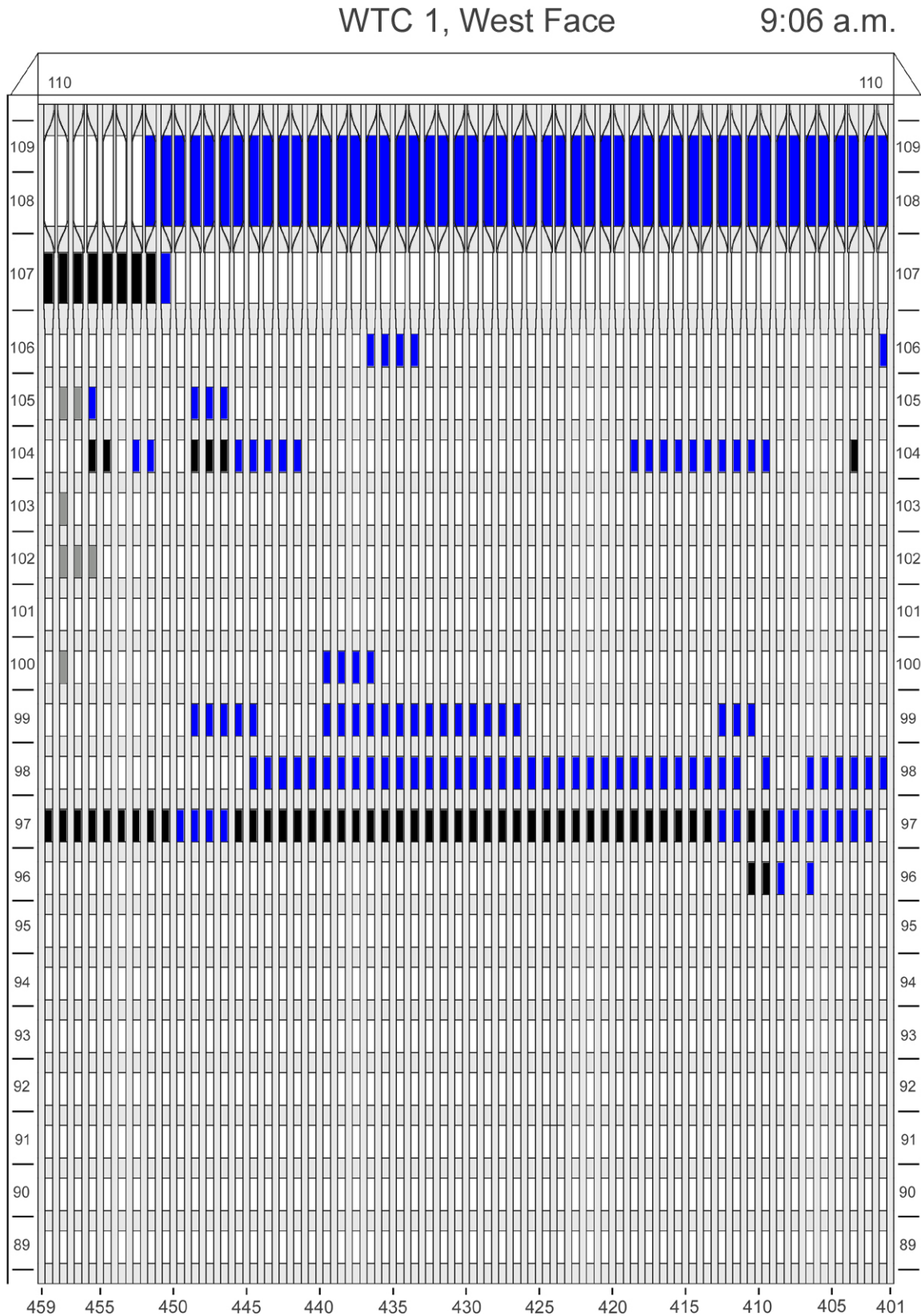
**Figure F-19. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:04 a.m. showing the condition of windows and locations of fires.**



**Figure F-20. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:04 a.m. showing windows where smoke was observed and those that were hidden from view.**

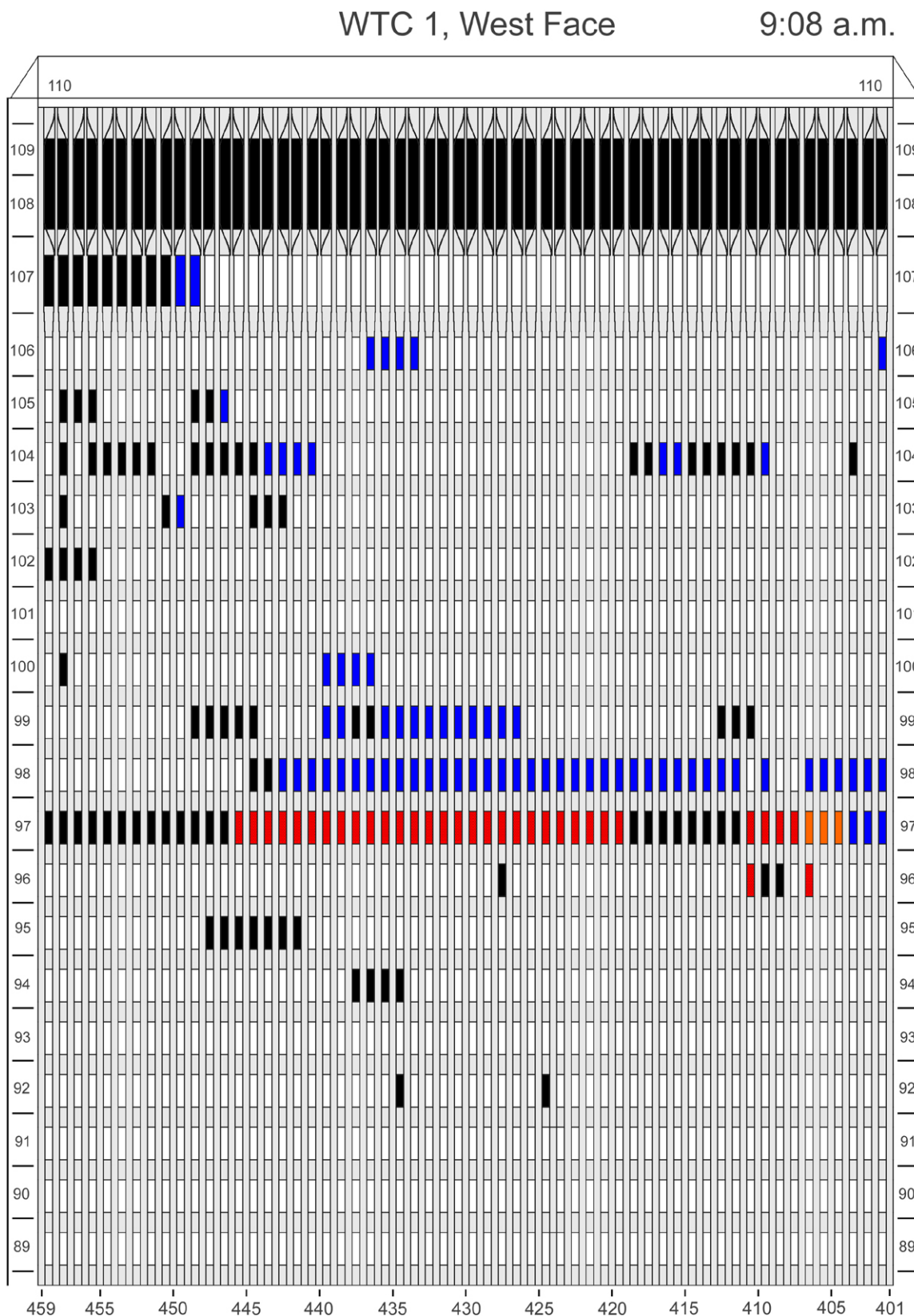


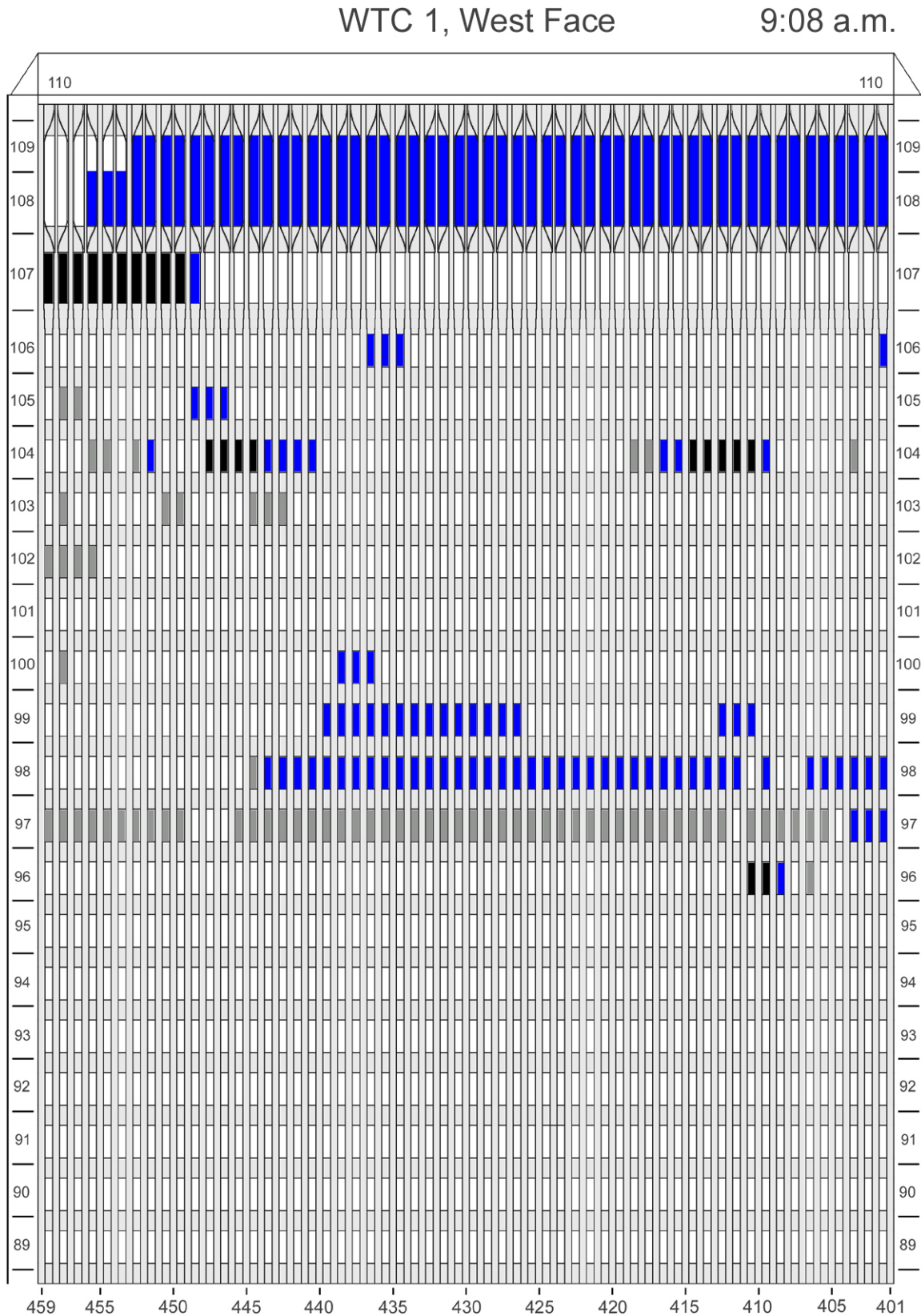
**Figure F-21. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:06 a.m. showing the condition of windows and locations of fires.**



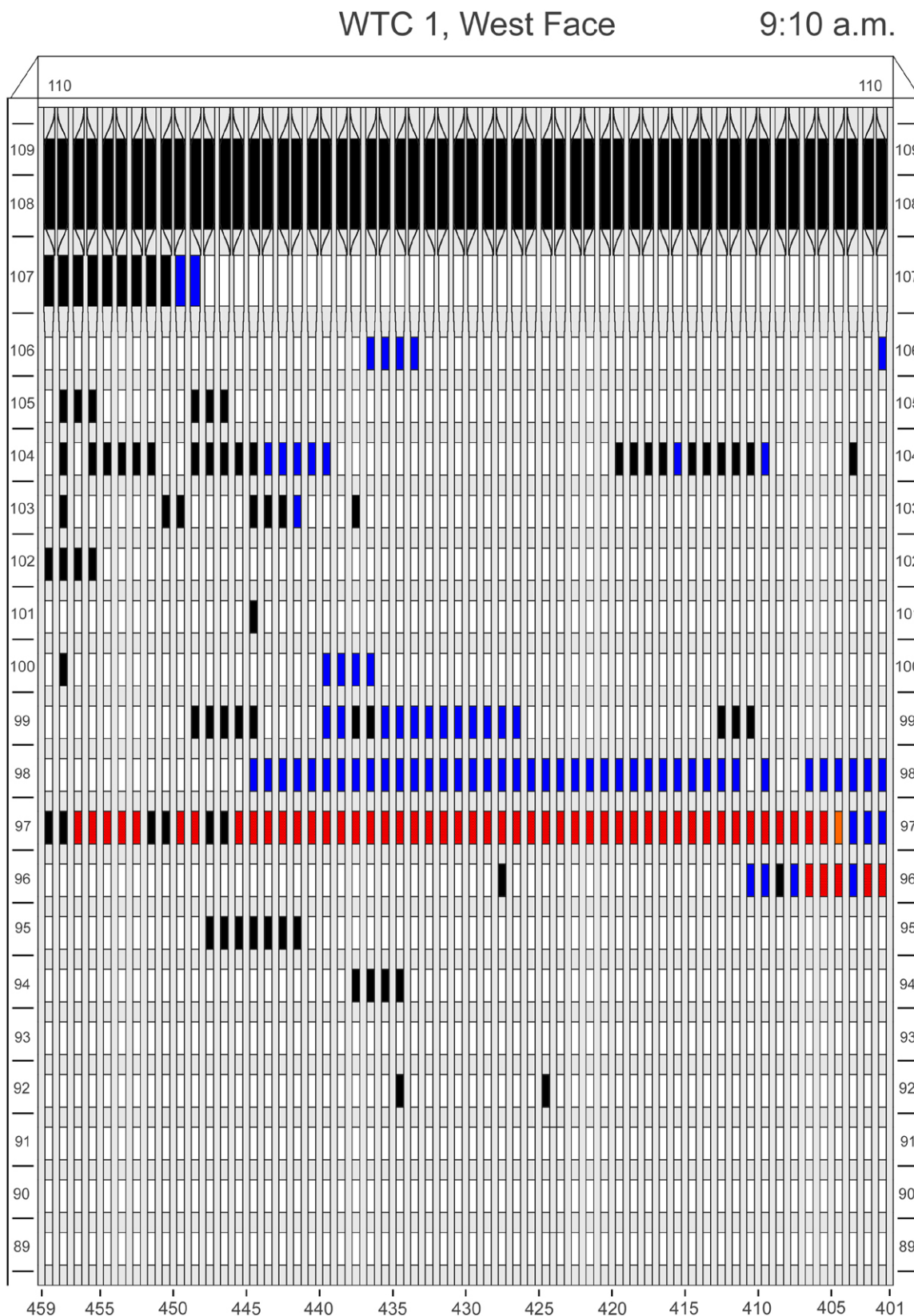
**Figure F-22. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:06 a.m. showing windows where smoke was observed and those that were hidden from view.**

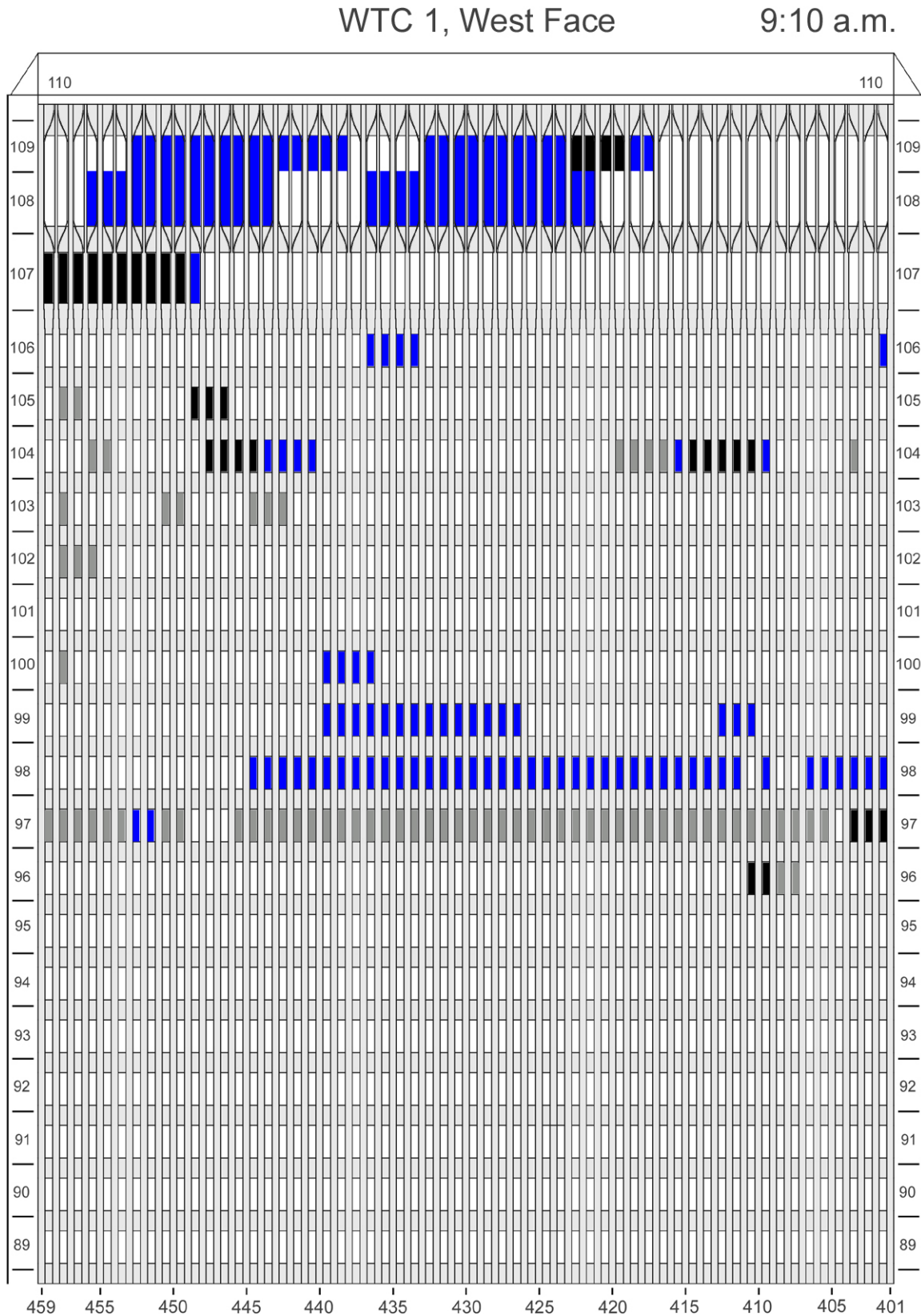




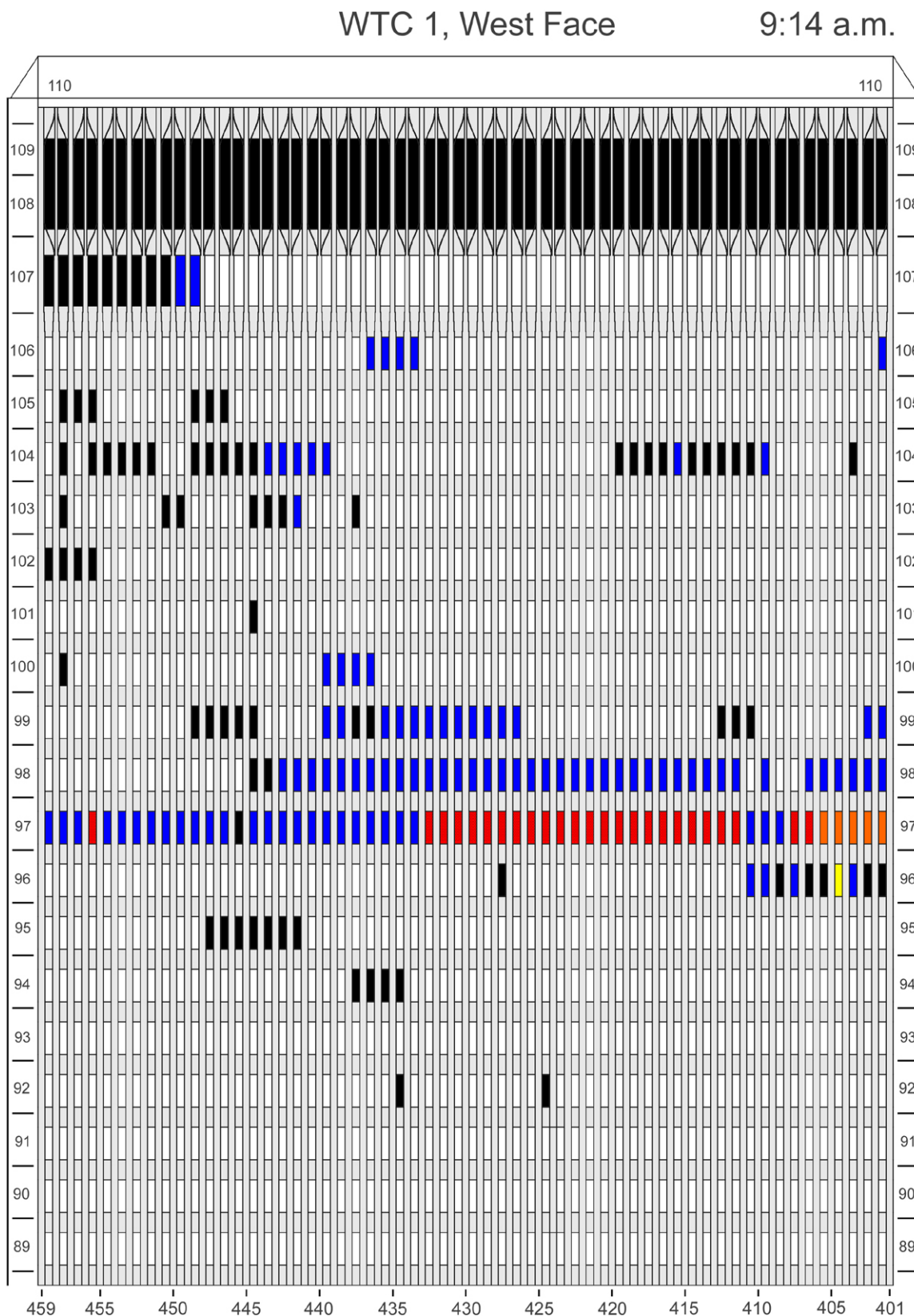


**Figure F-24. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:08 a.m. showing windows where smoke was observed and those that were hidden from view.**



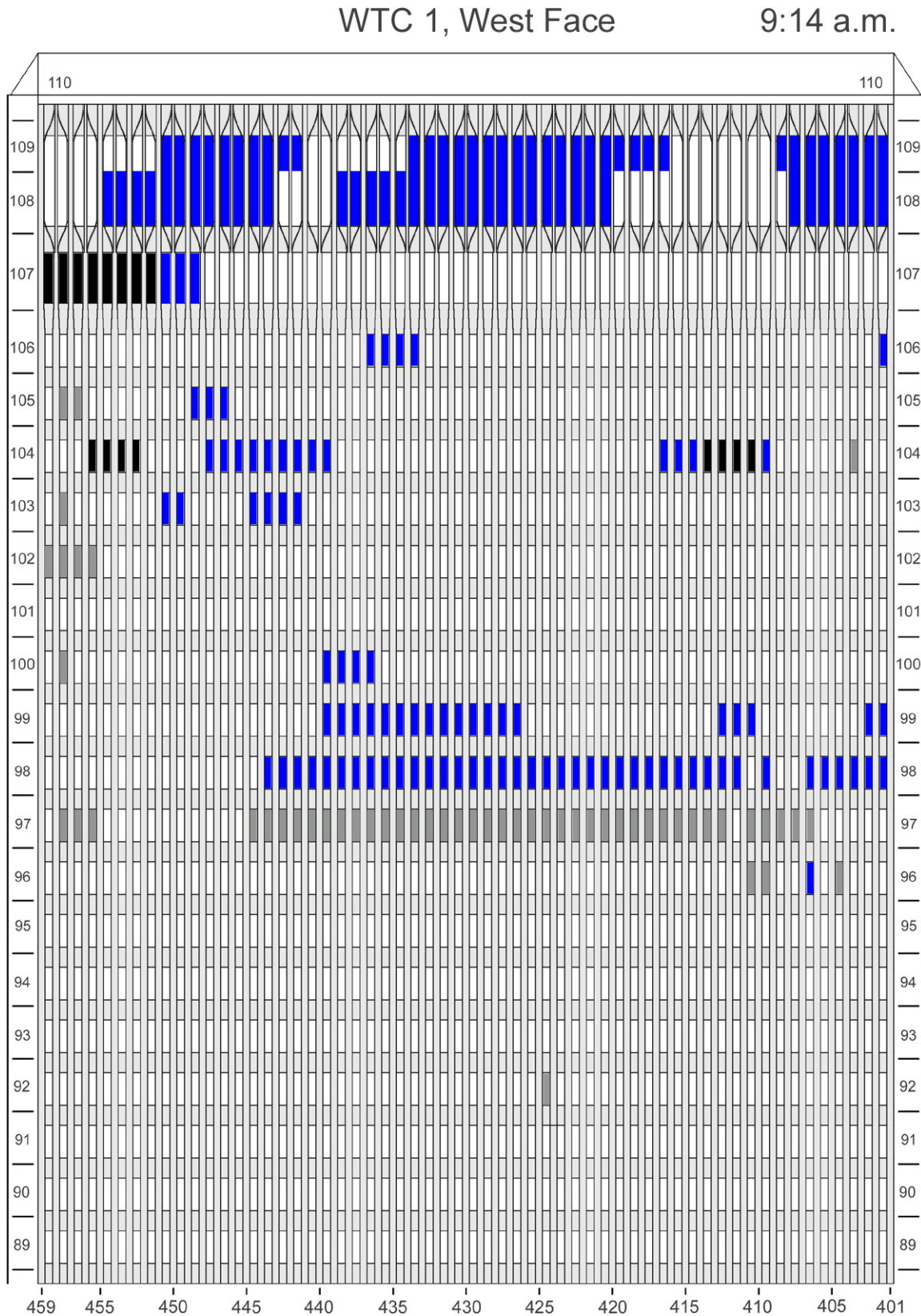


**Figure F-26. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:10 a.m. showing windows where smoke was observed and those that were hidden from view.**

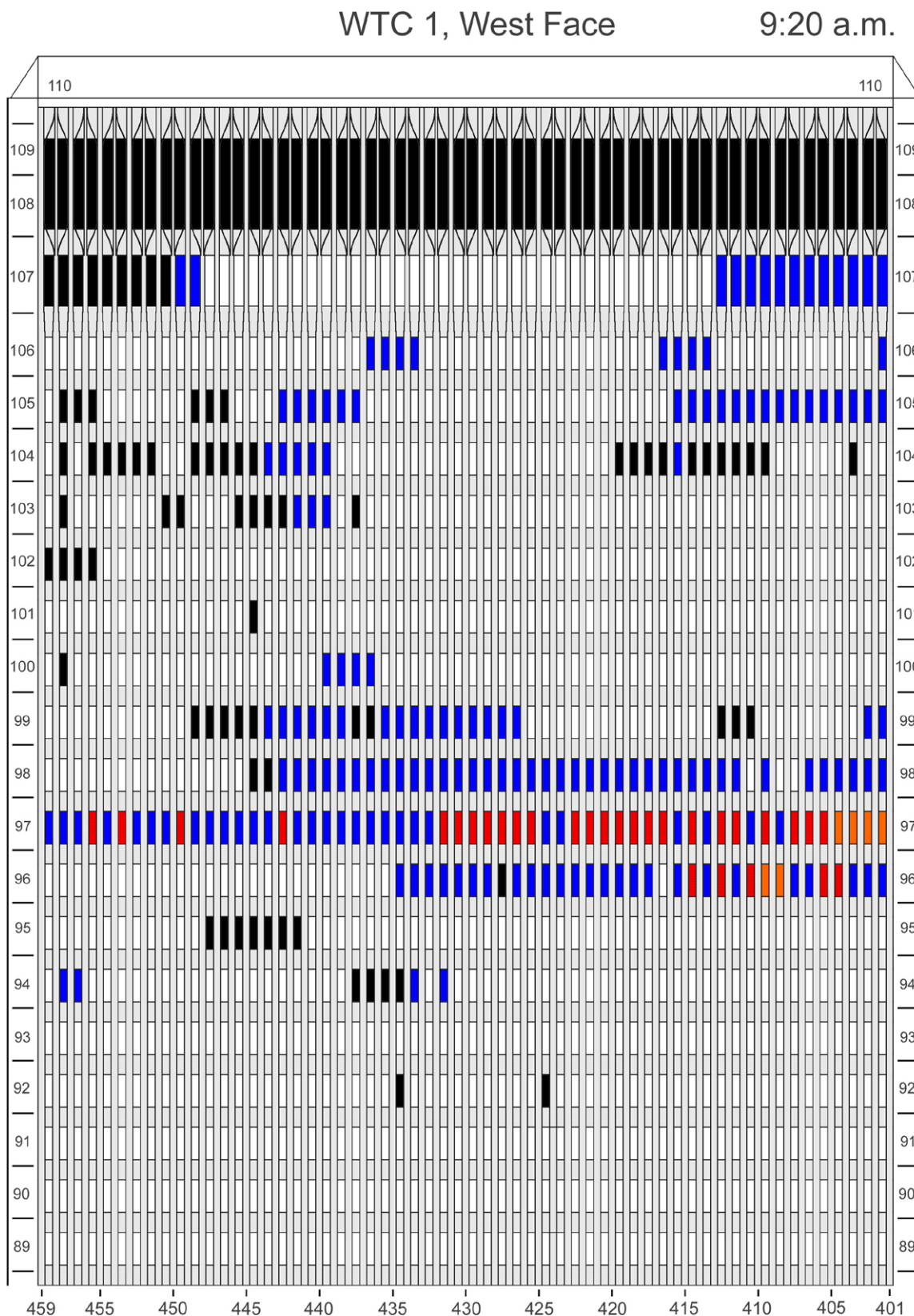


**Figure F-27. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:14 a.m. showing the condition of windows and locations of fires.**

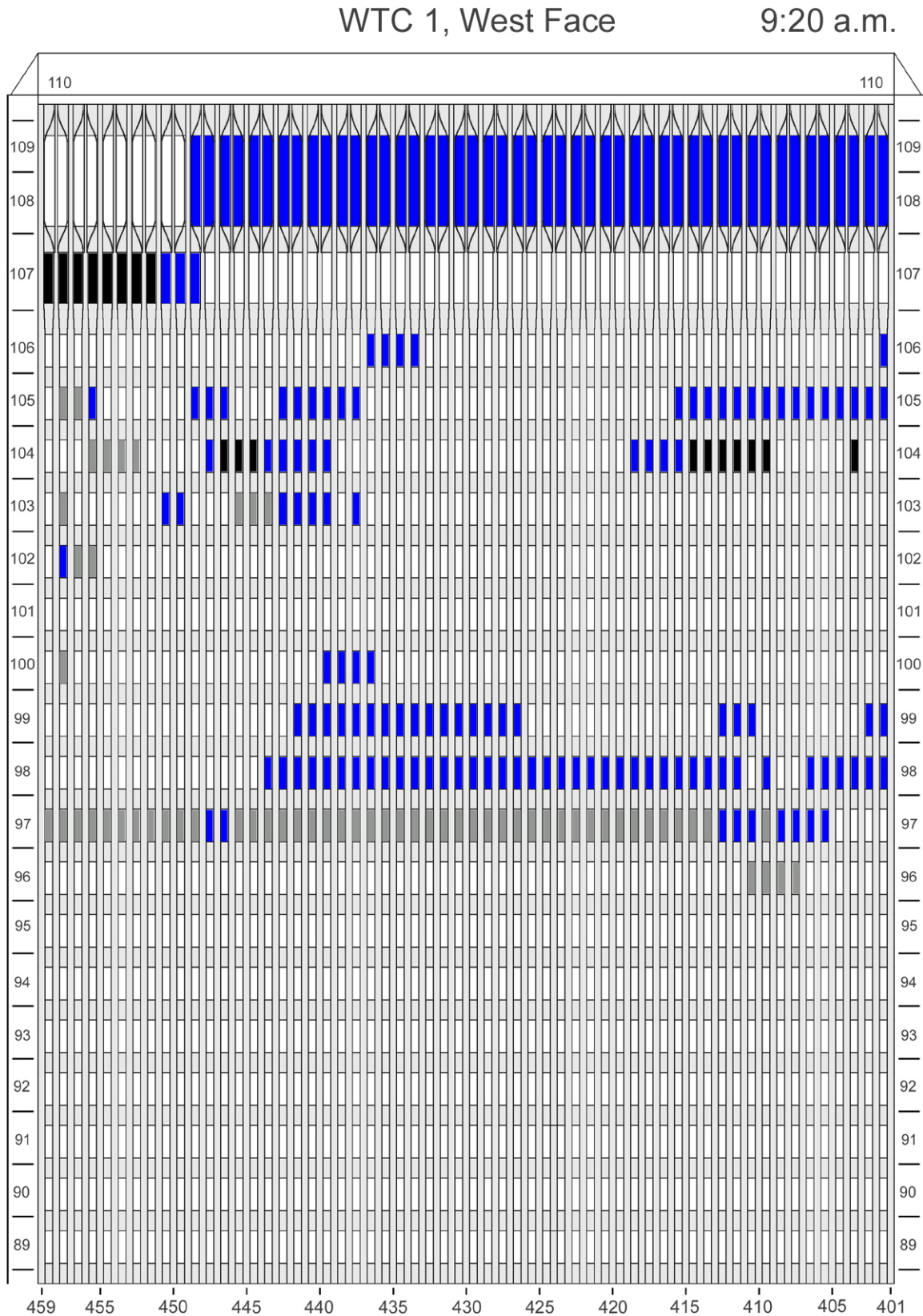




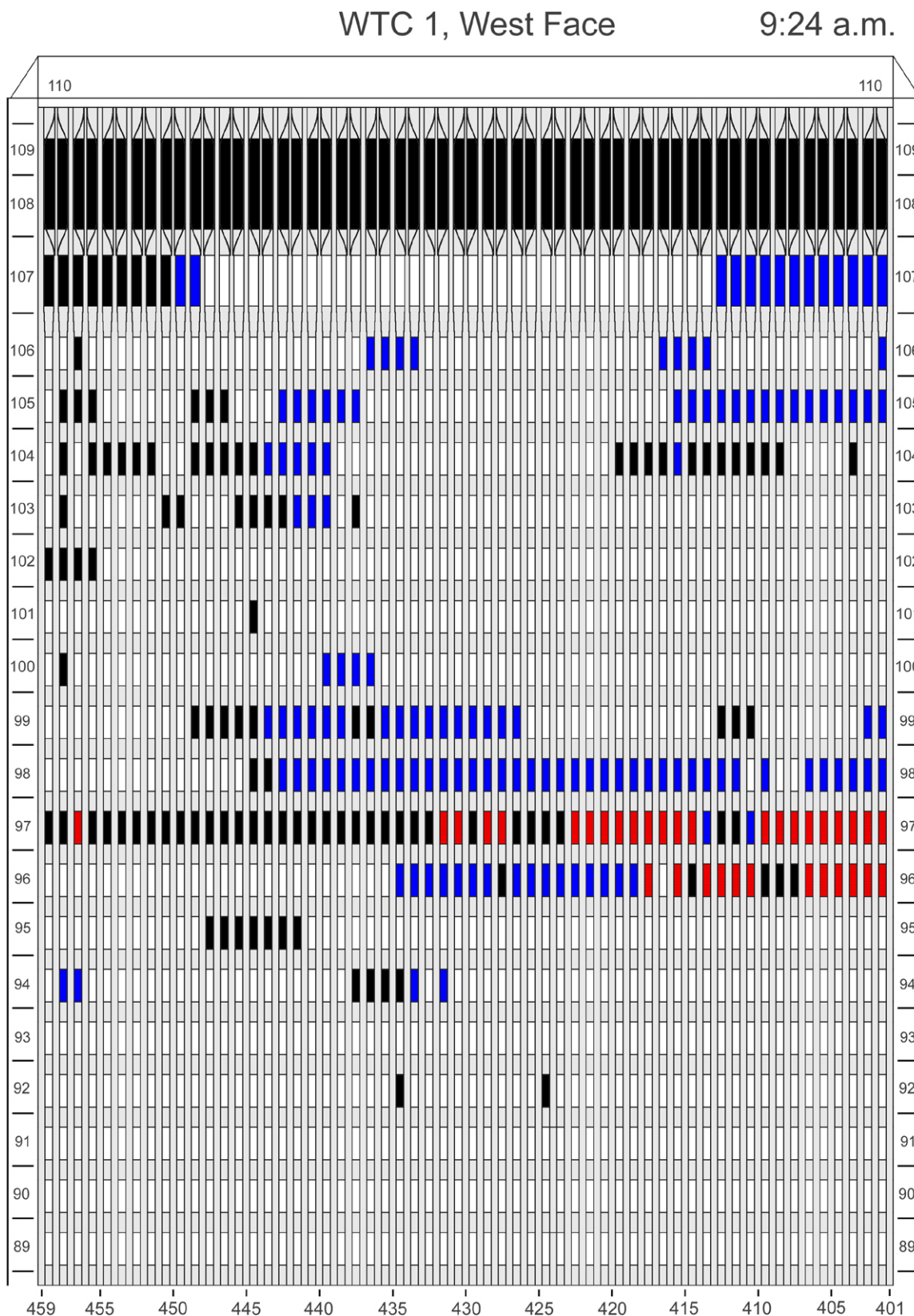
**Figure F-28. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:14 a.m. showing windows where smoke was observed and those that were hidden from view.**



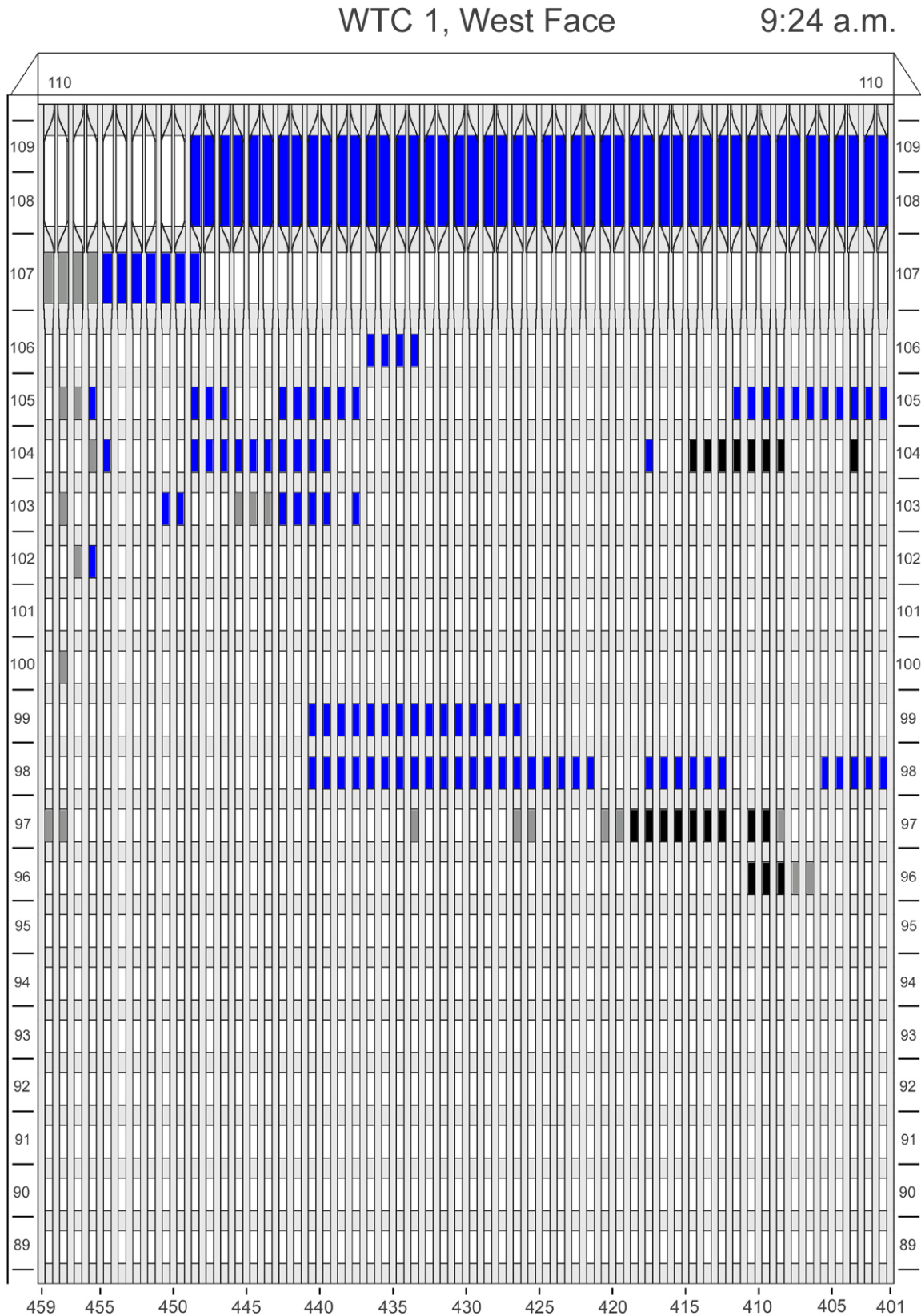
**Figure F-29. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:20 a.m. showing the condition of windows and locations of fires.**



**Figure F-30. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:20 a.m. showing windows where smoke was observed and those that were hidden from view.**

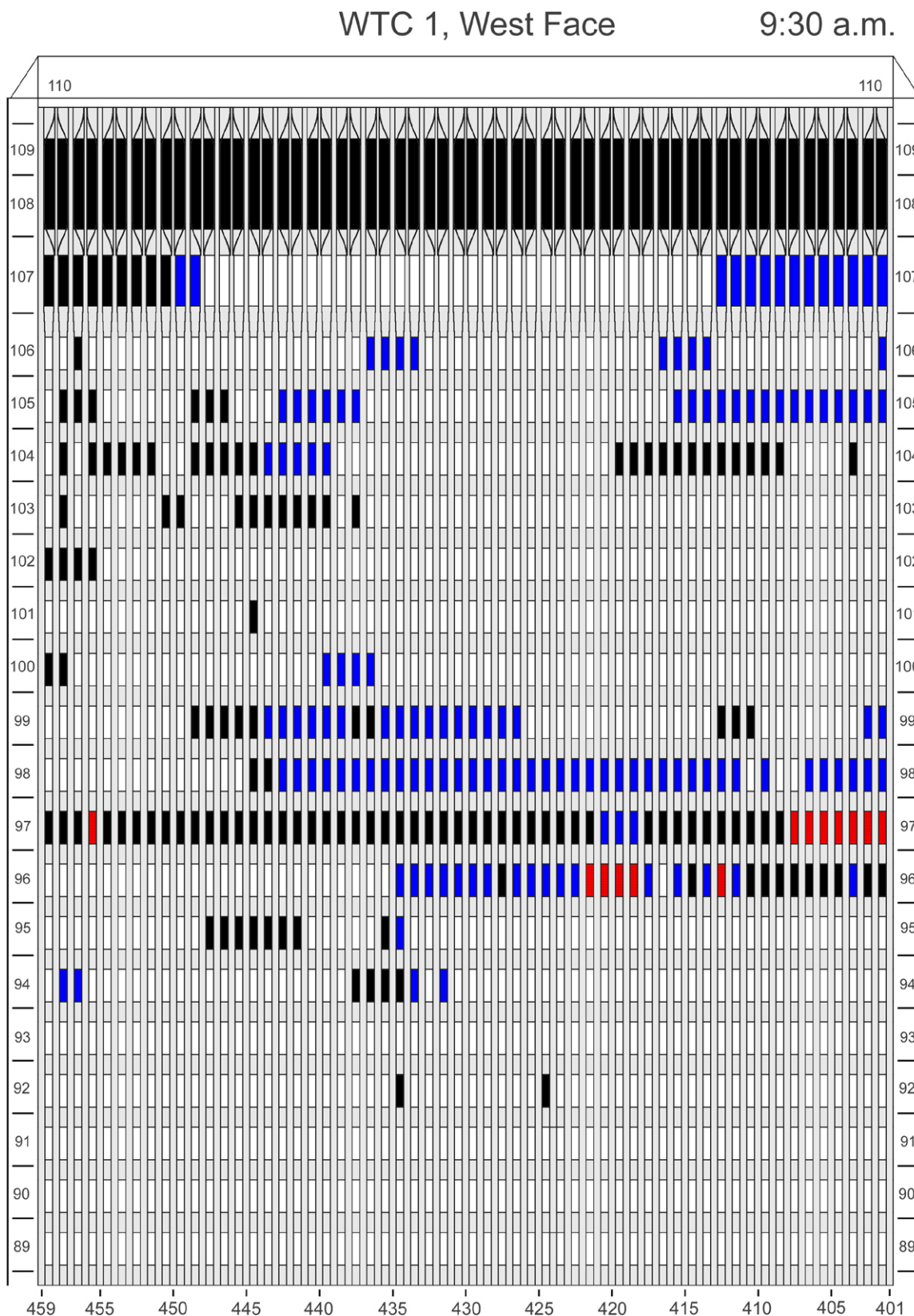


**Figure F-31. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:24 a.m. showing the condition of windows and locations of fires.**

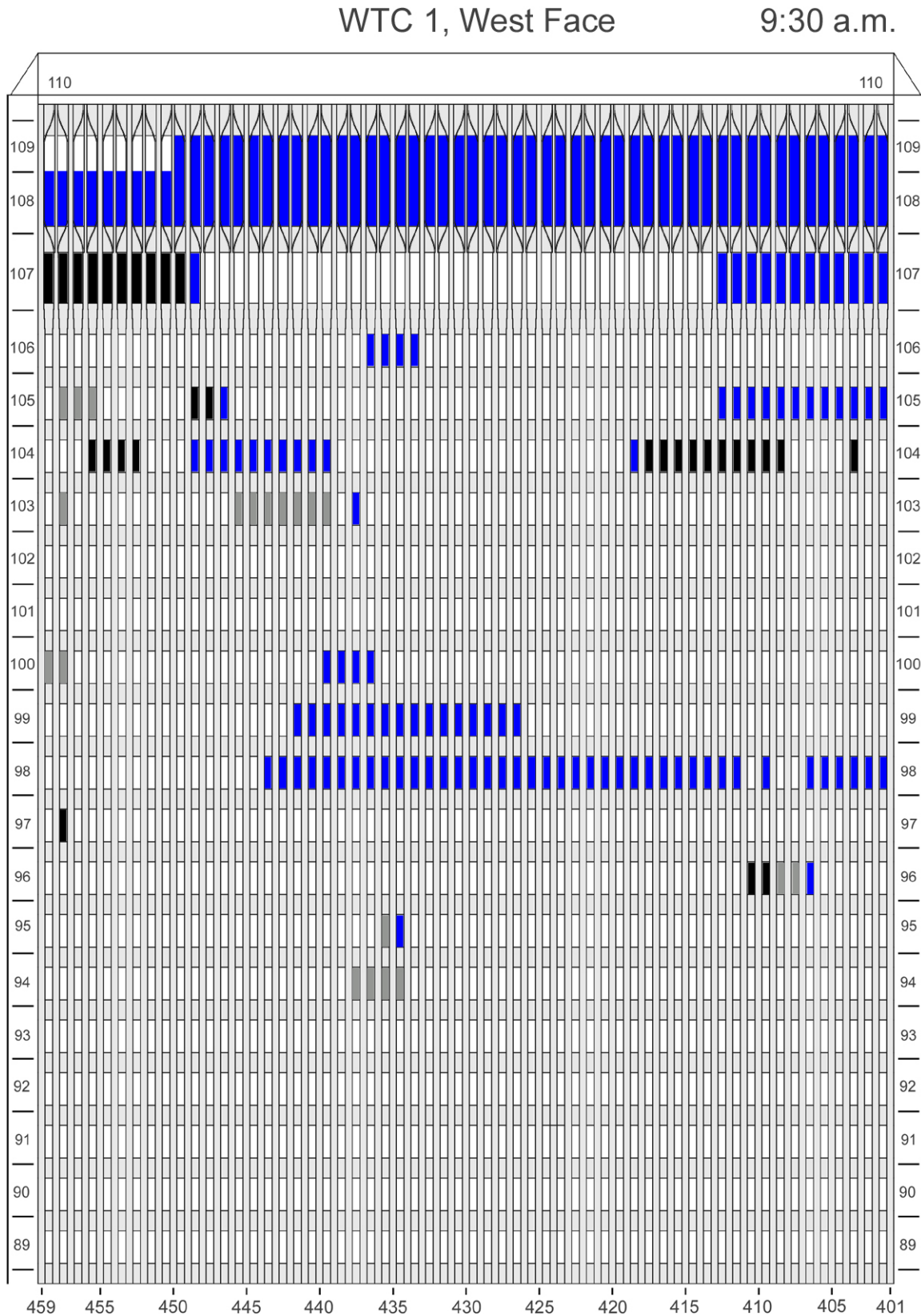


**Figure F-32. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:24 a.m. showing windows where smoke was observed and those that were hidden from view.**

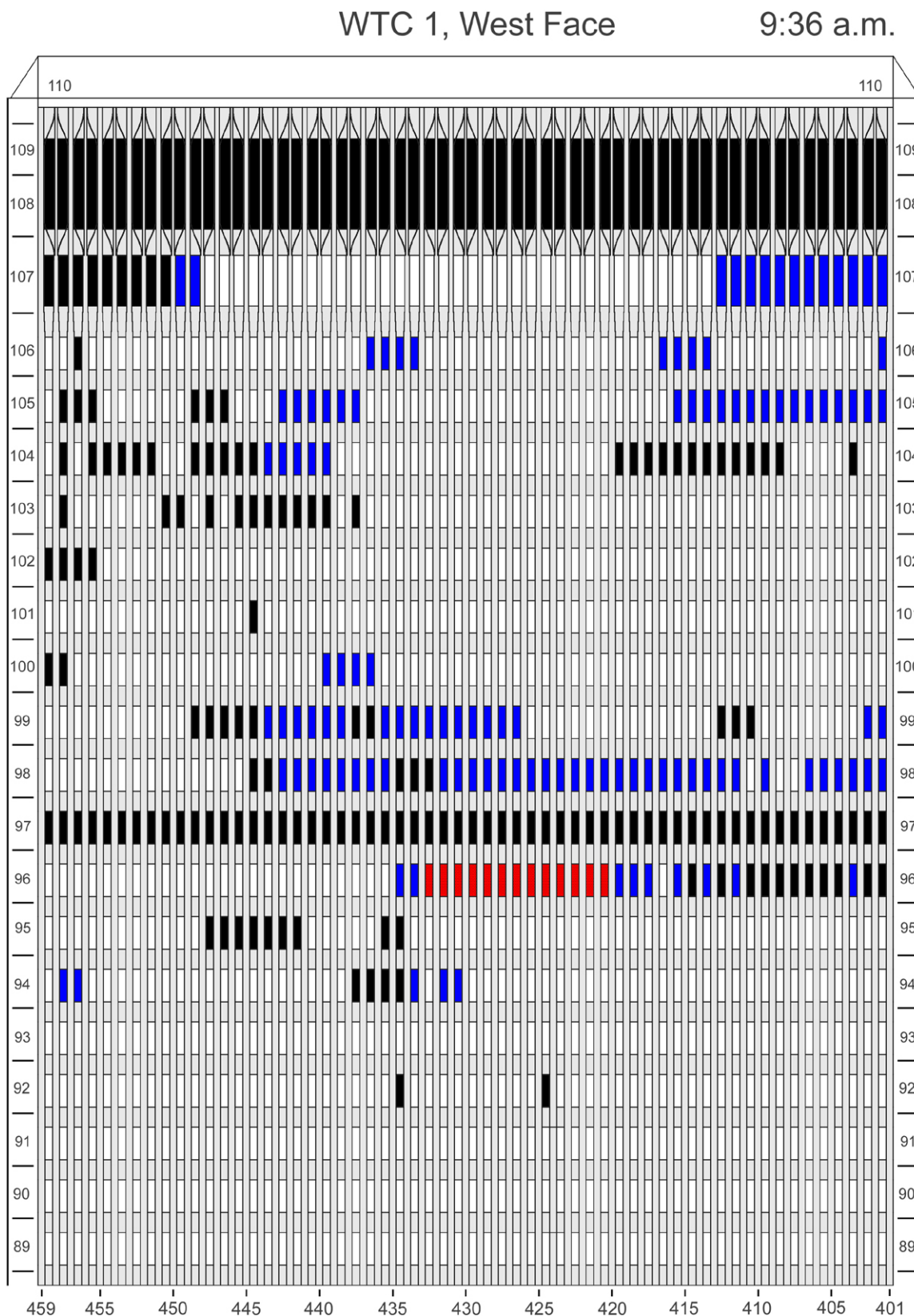


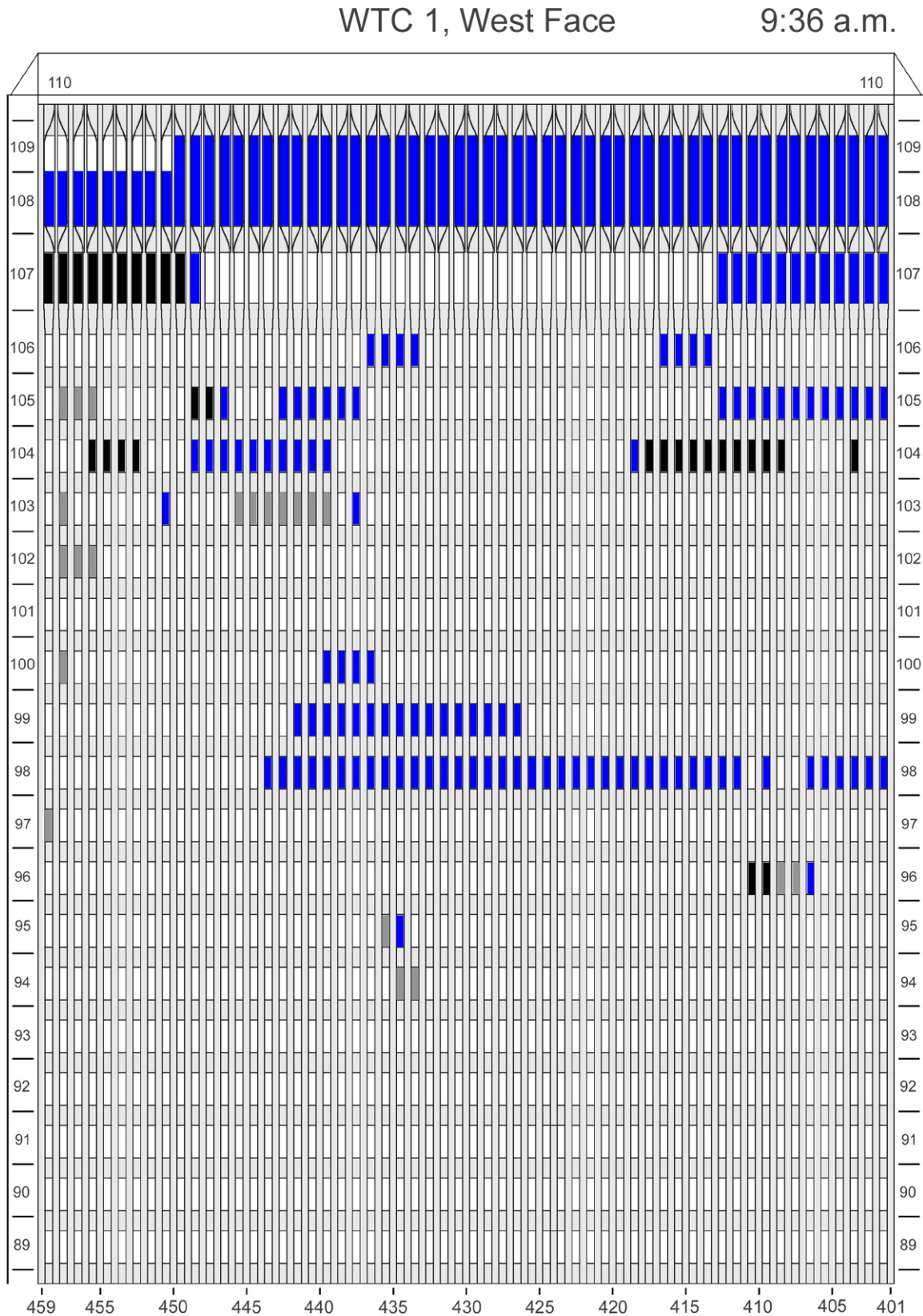


**Figure F-33. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:30 a.m. showing the condition of windows and locations of fires.**

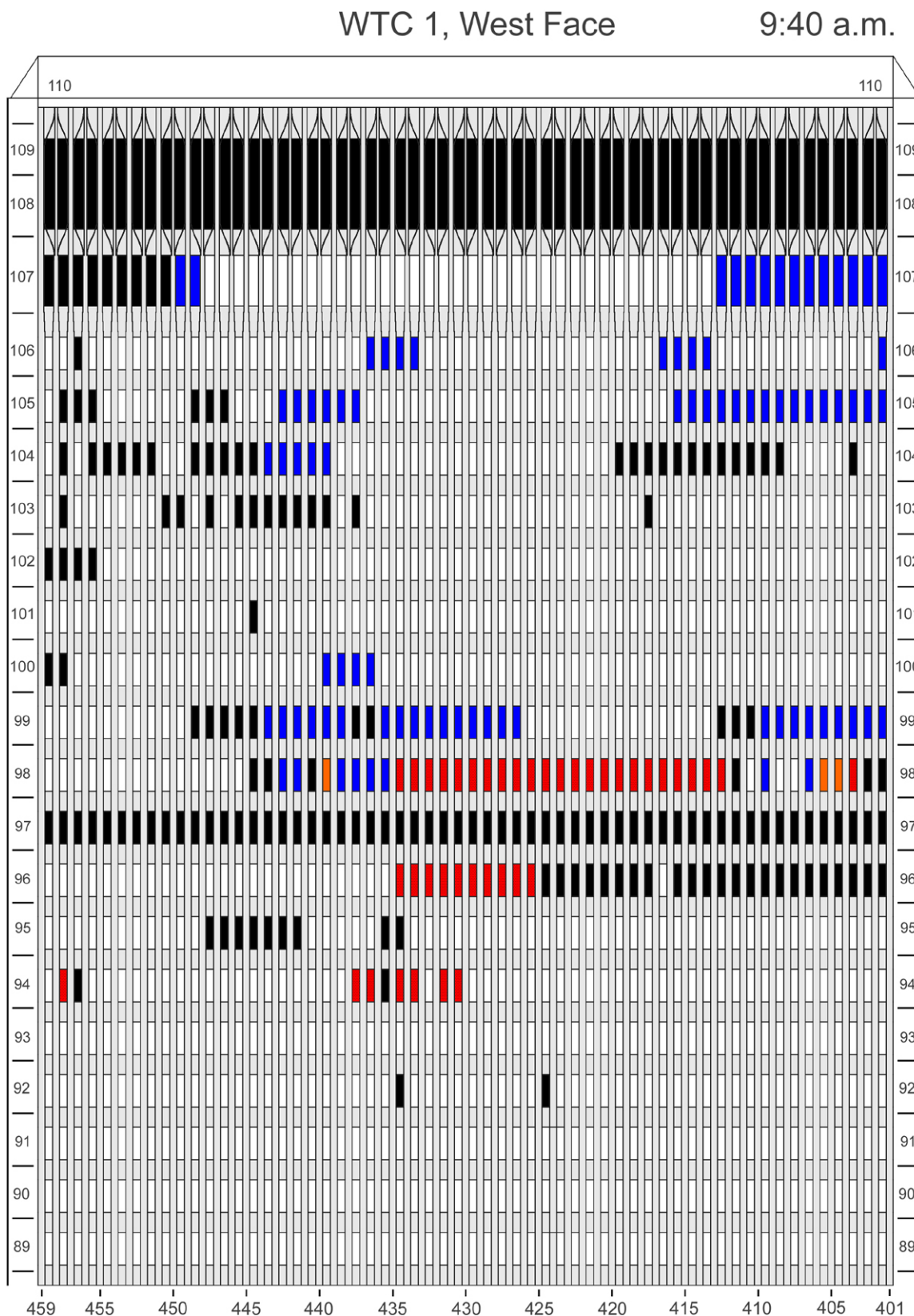


**Figure F-34. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:30 a.m. showing windows where smoke was observed and those that were hidden from view.**



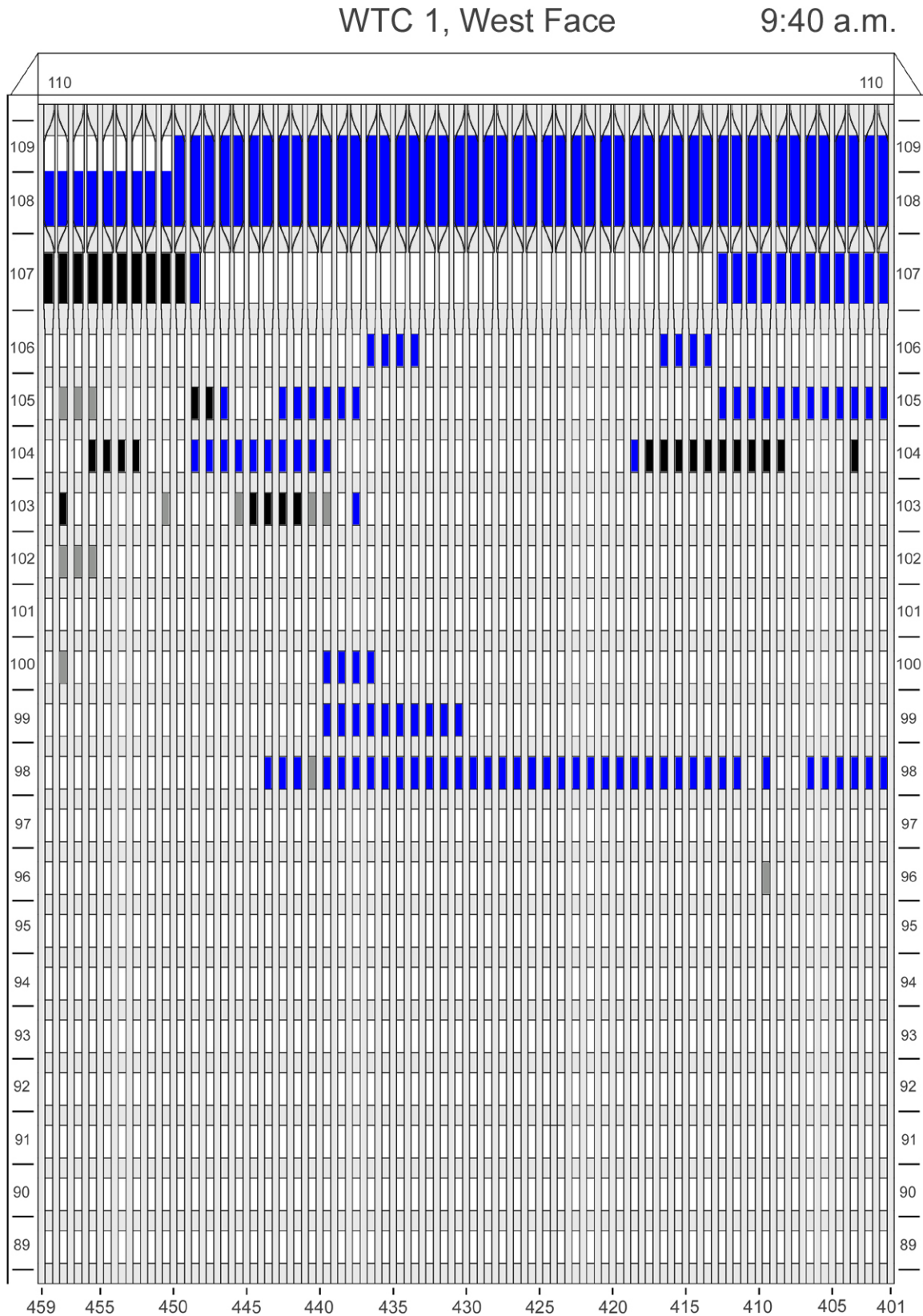


**Figure F-36. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:36 a.m. showing windows where smoke was observed and those that were hidden from view.**

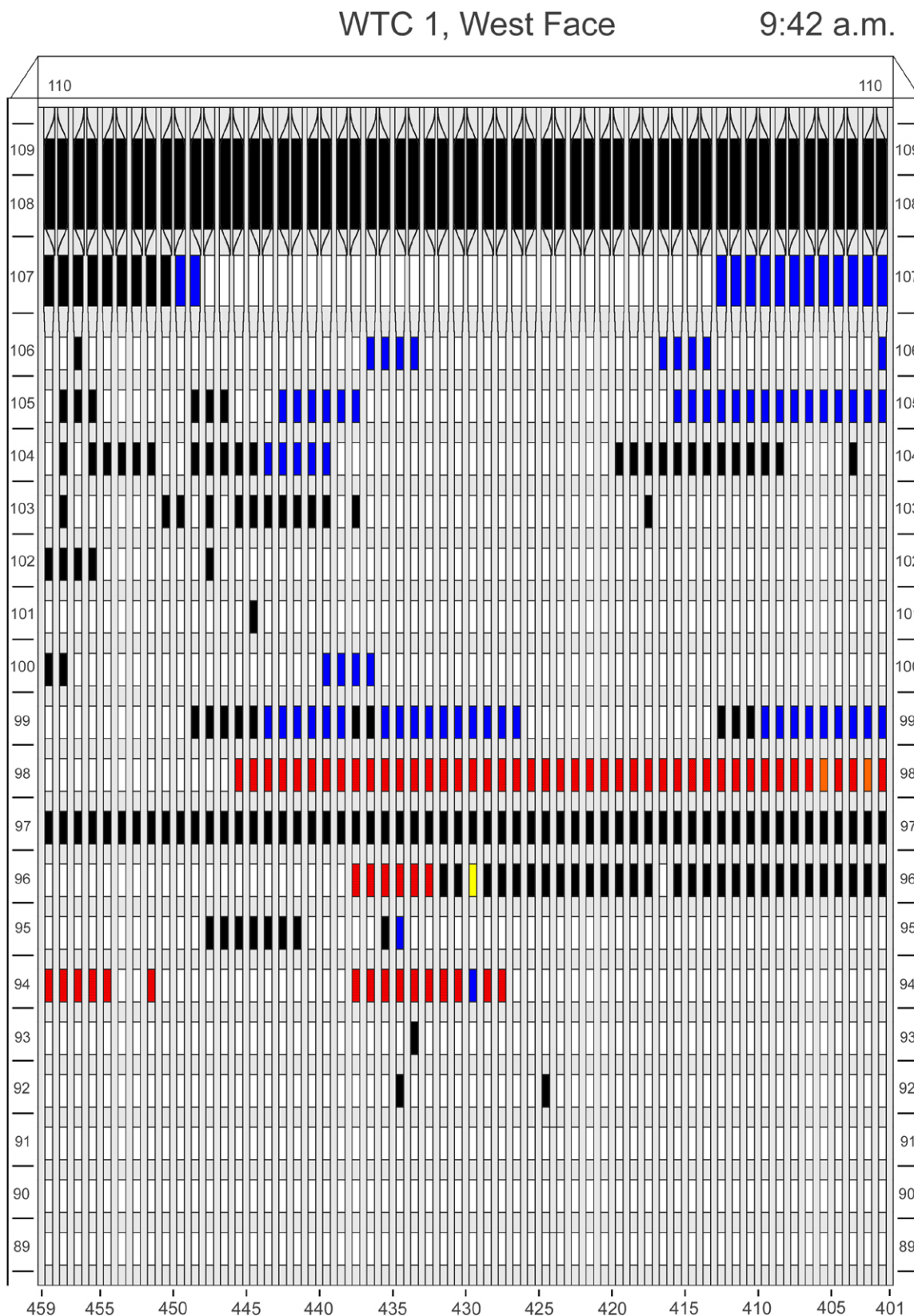


**Figure F-37. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:40 a.m. showing the condition of windows and locations of fires.**

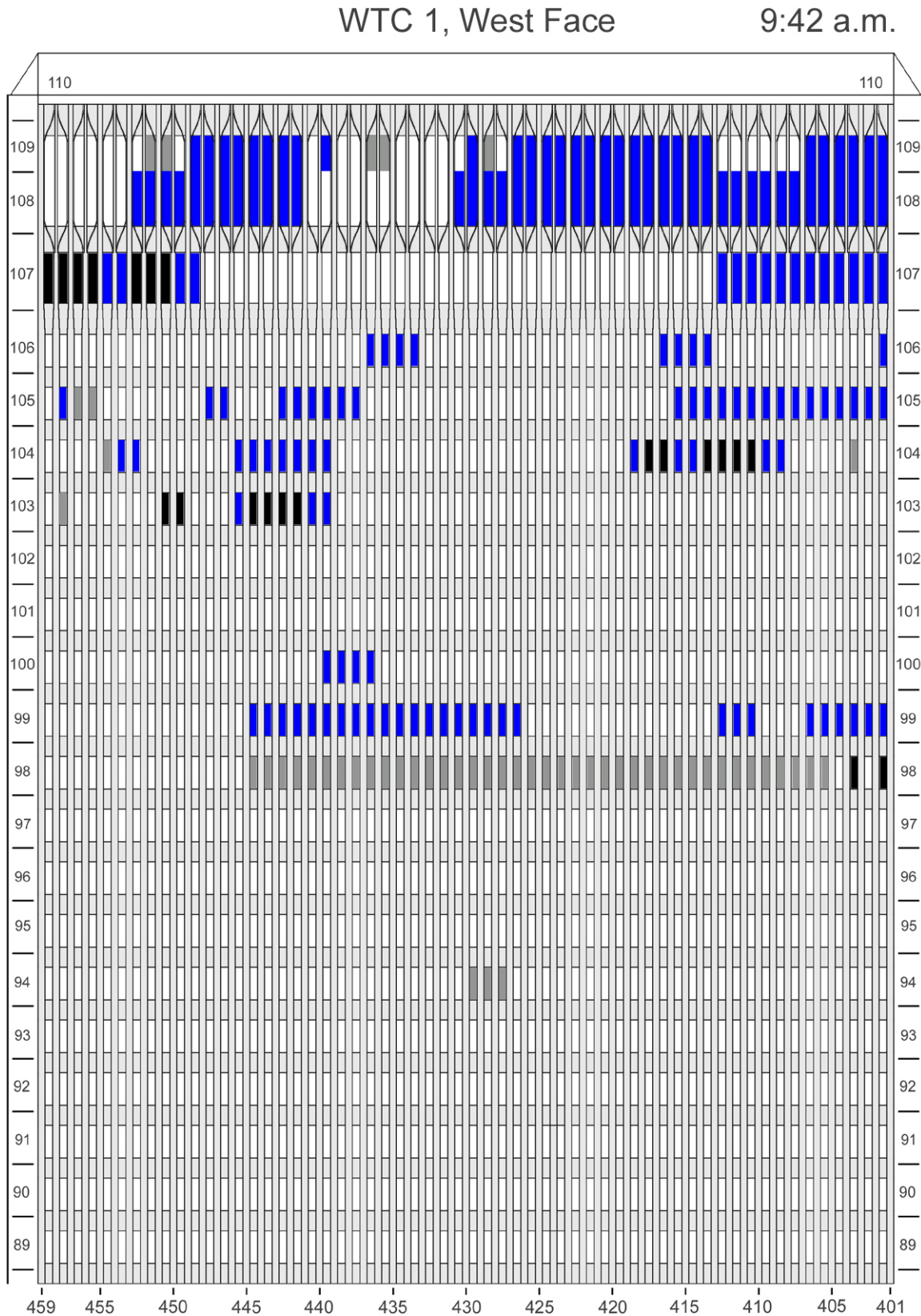




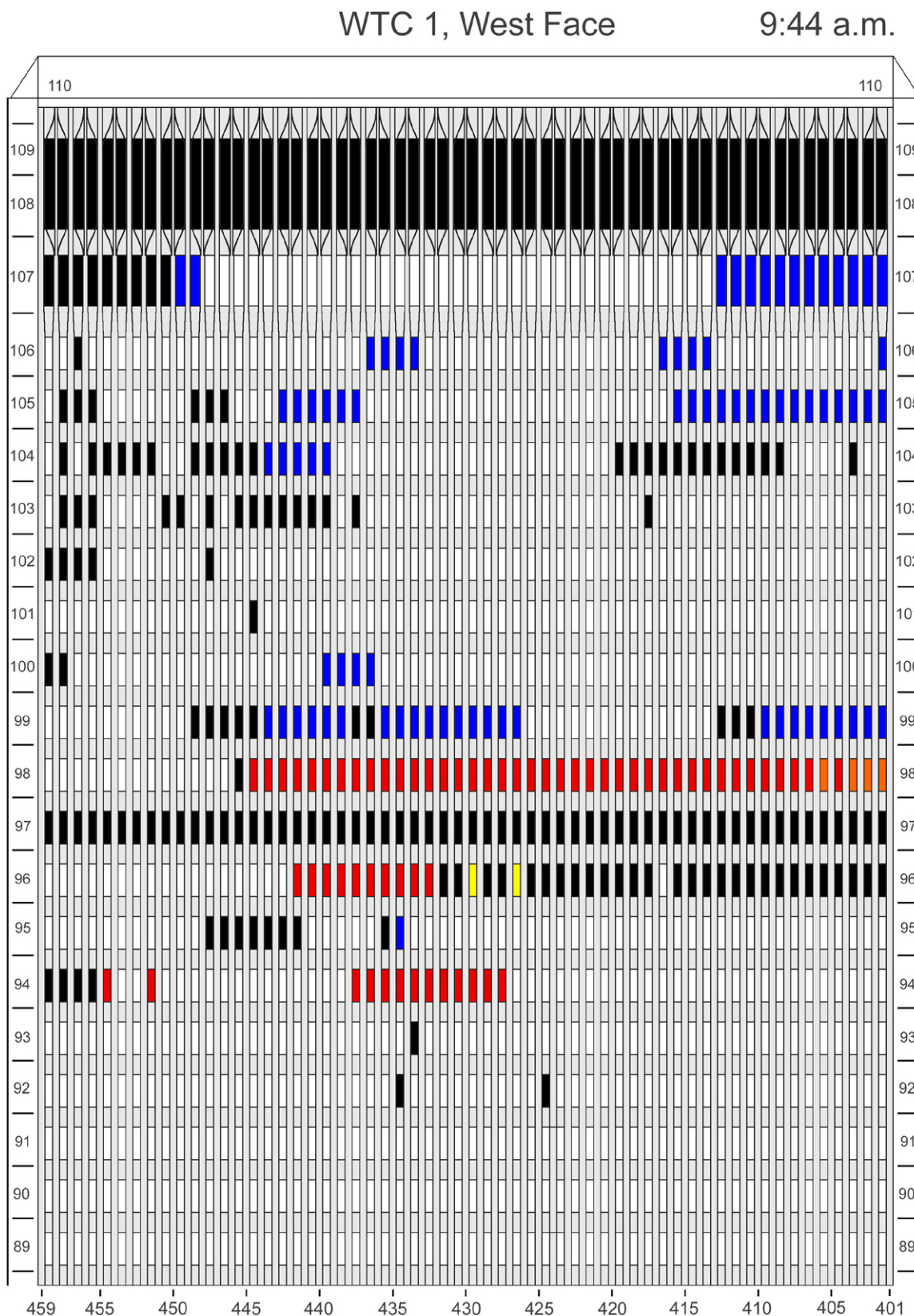
**Figure F-38. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:40 a.m. showing windows where smoke was observed and those that were hidden from view.**



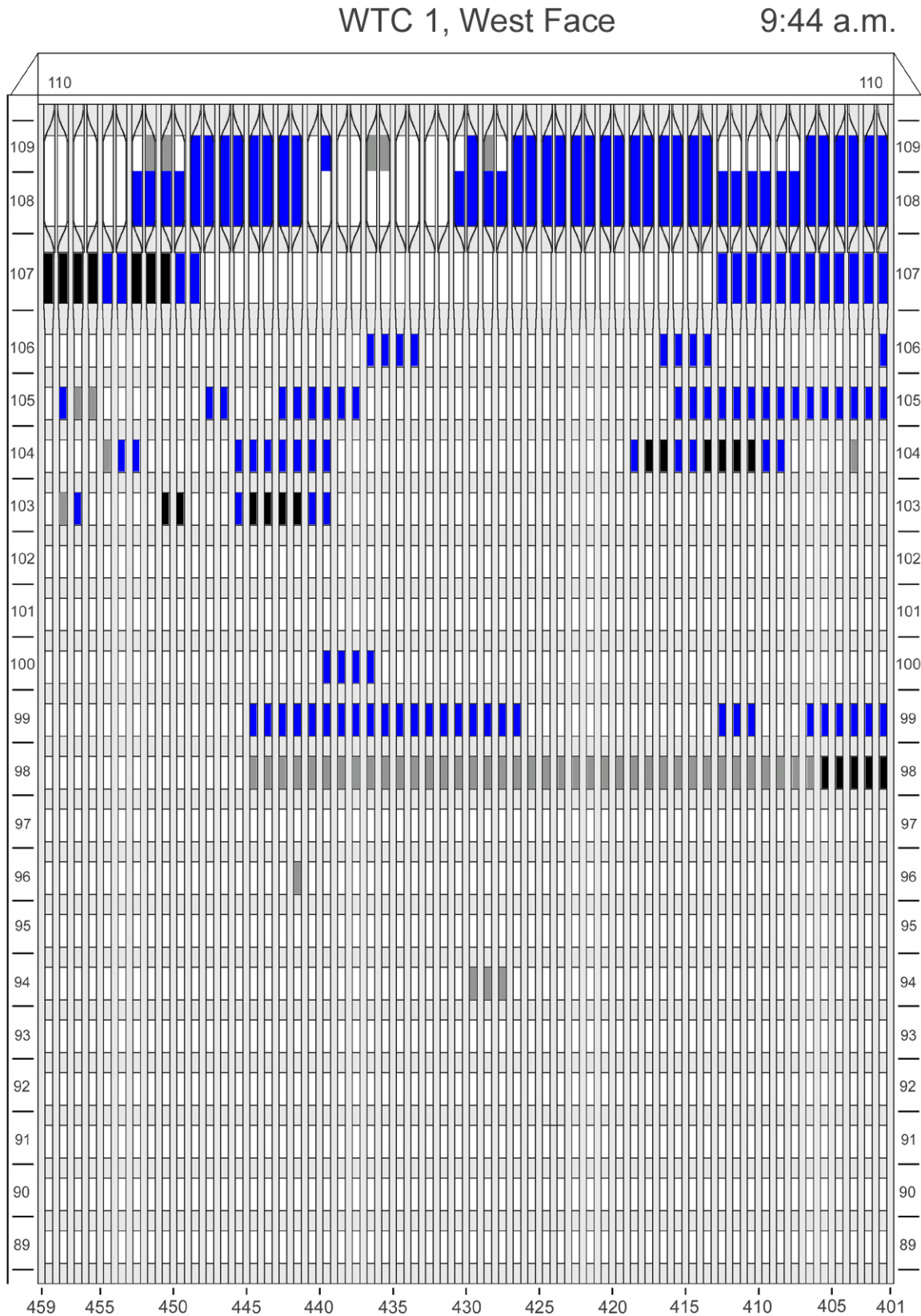
**Figure F-39. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:42 a.m. showing the condition of windows and locations of fires.**



**Figure F-40. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:42 a.m. showing windows where smoke was observed and those that were hidden from view.**

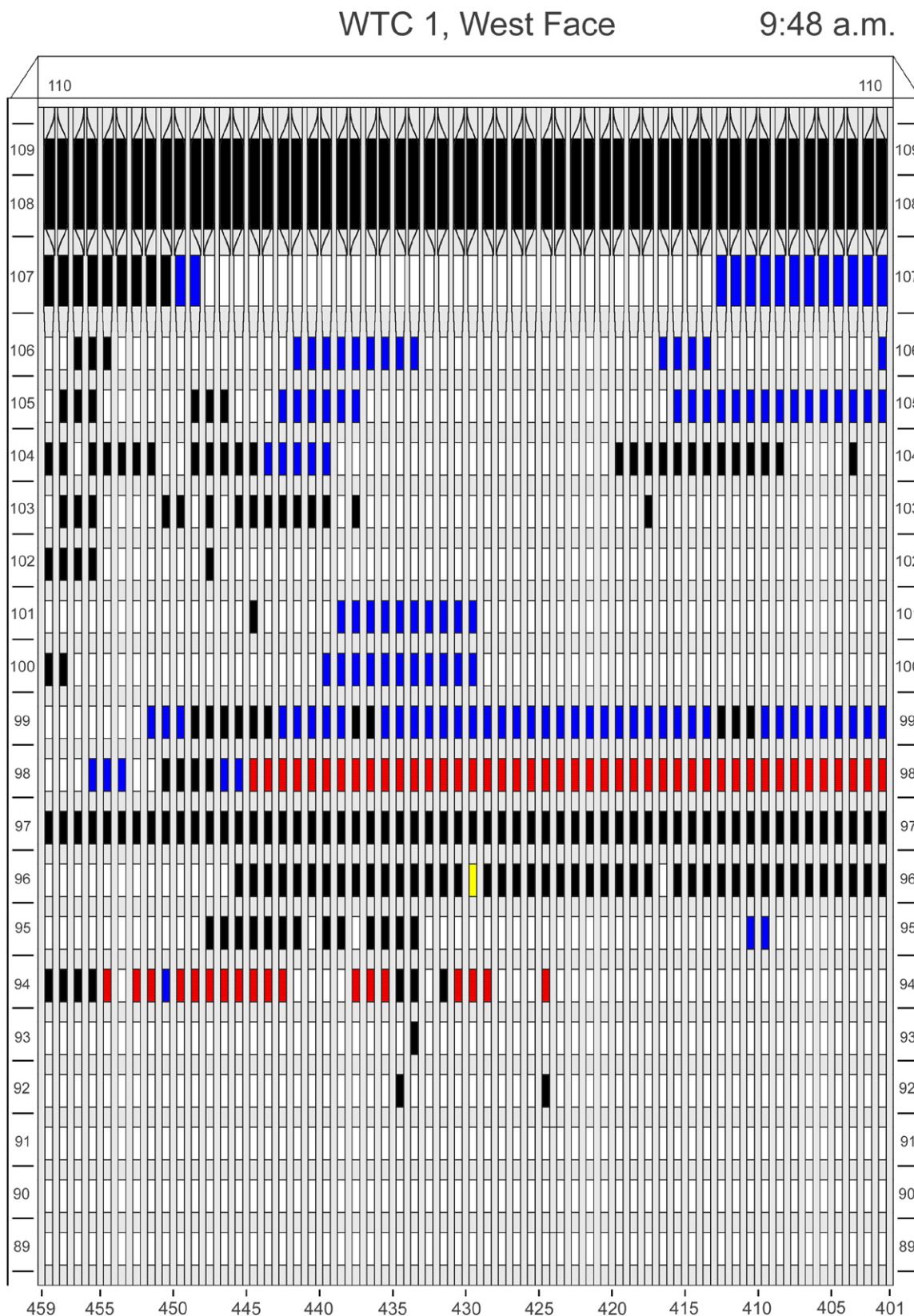


**Figure F-41. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:44 a.m. showing the condition of windows and locations of fires.**

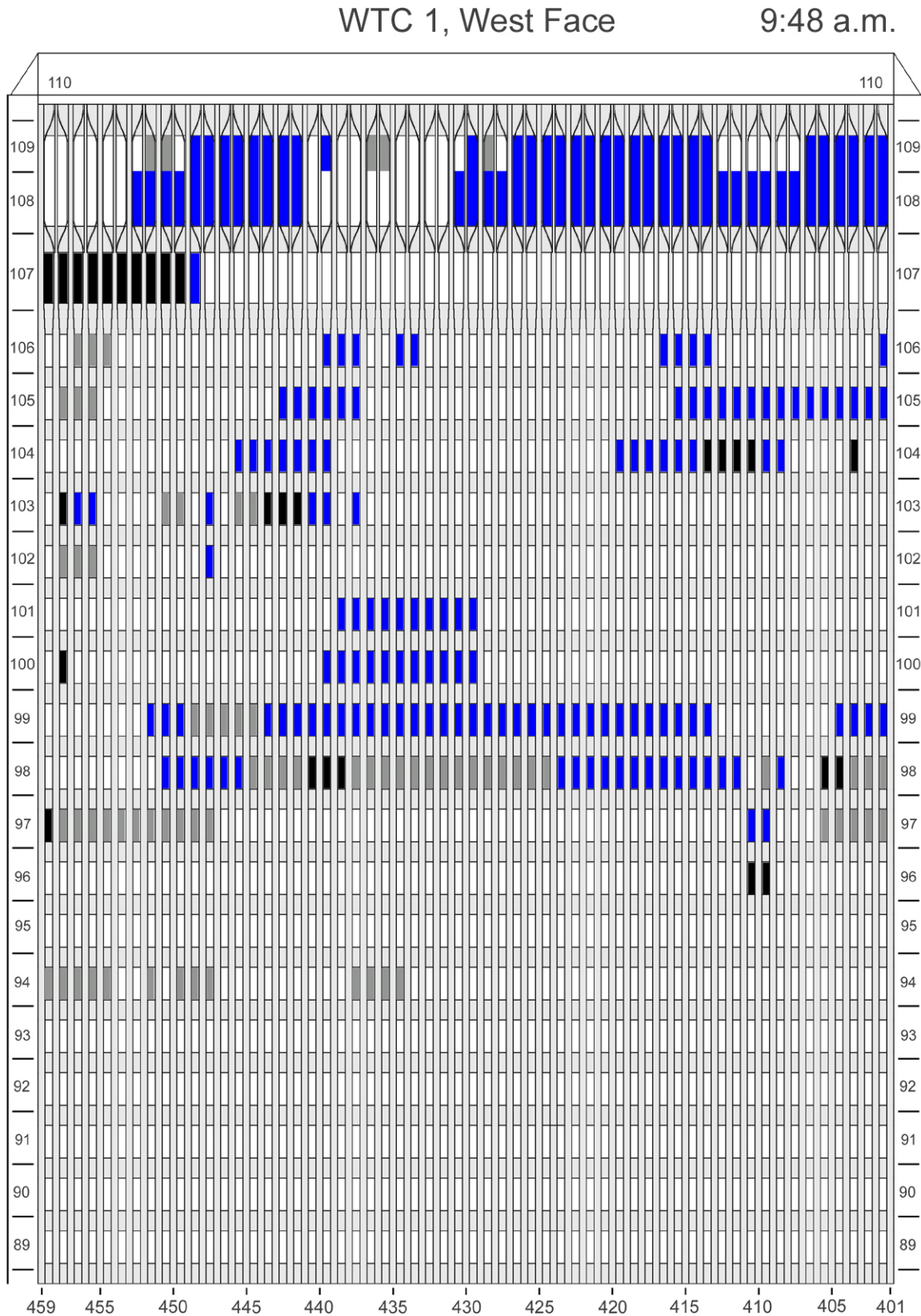


**Figure F-42. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:44 a.m. showing windows where smoke was observed and those that were hidden from view.**

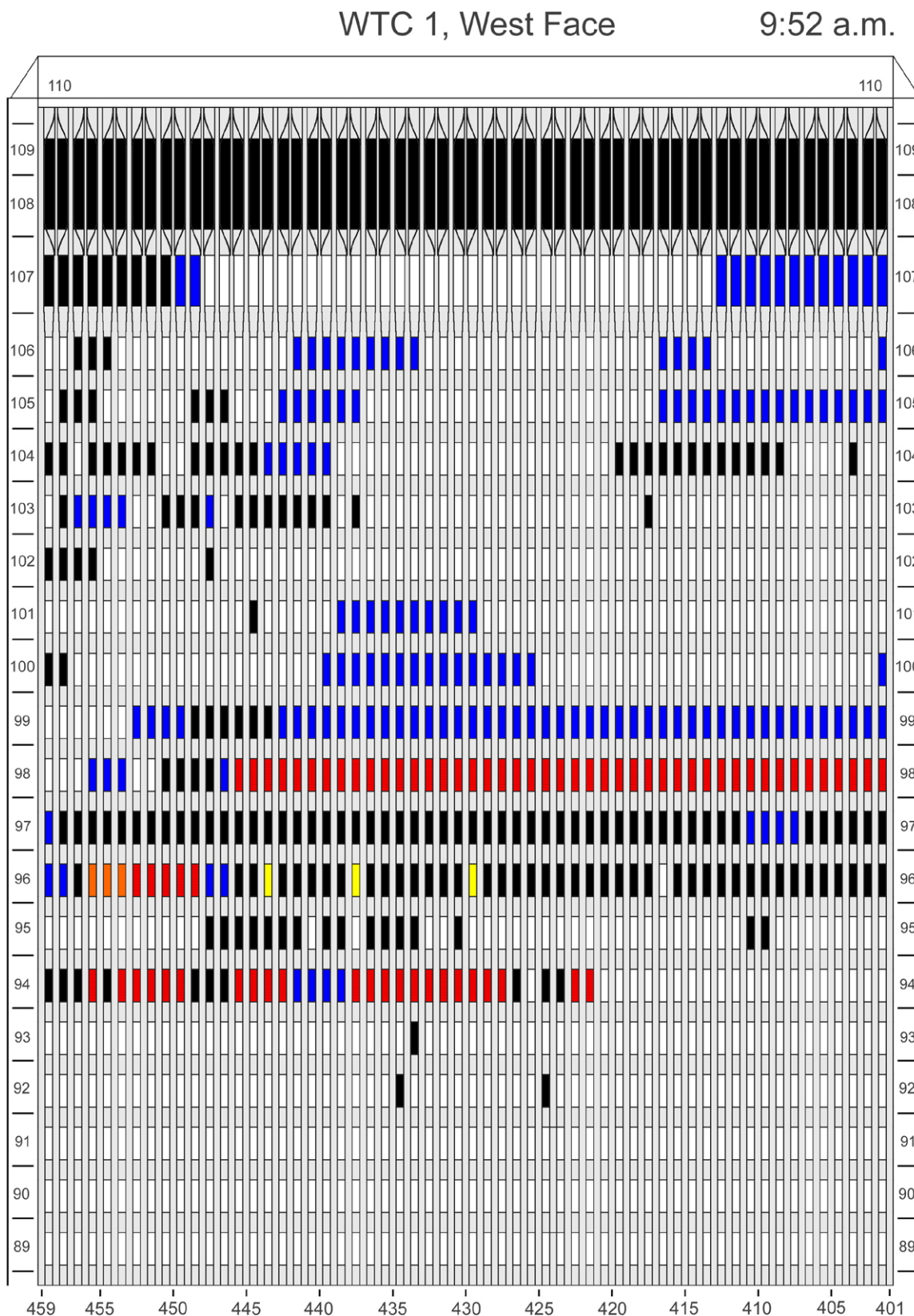




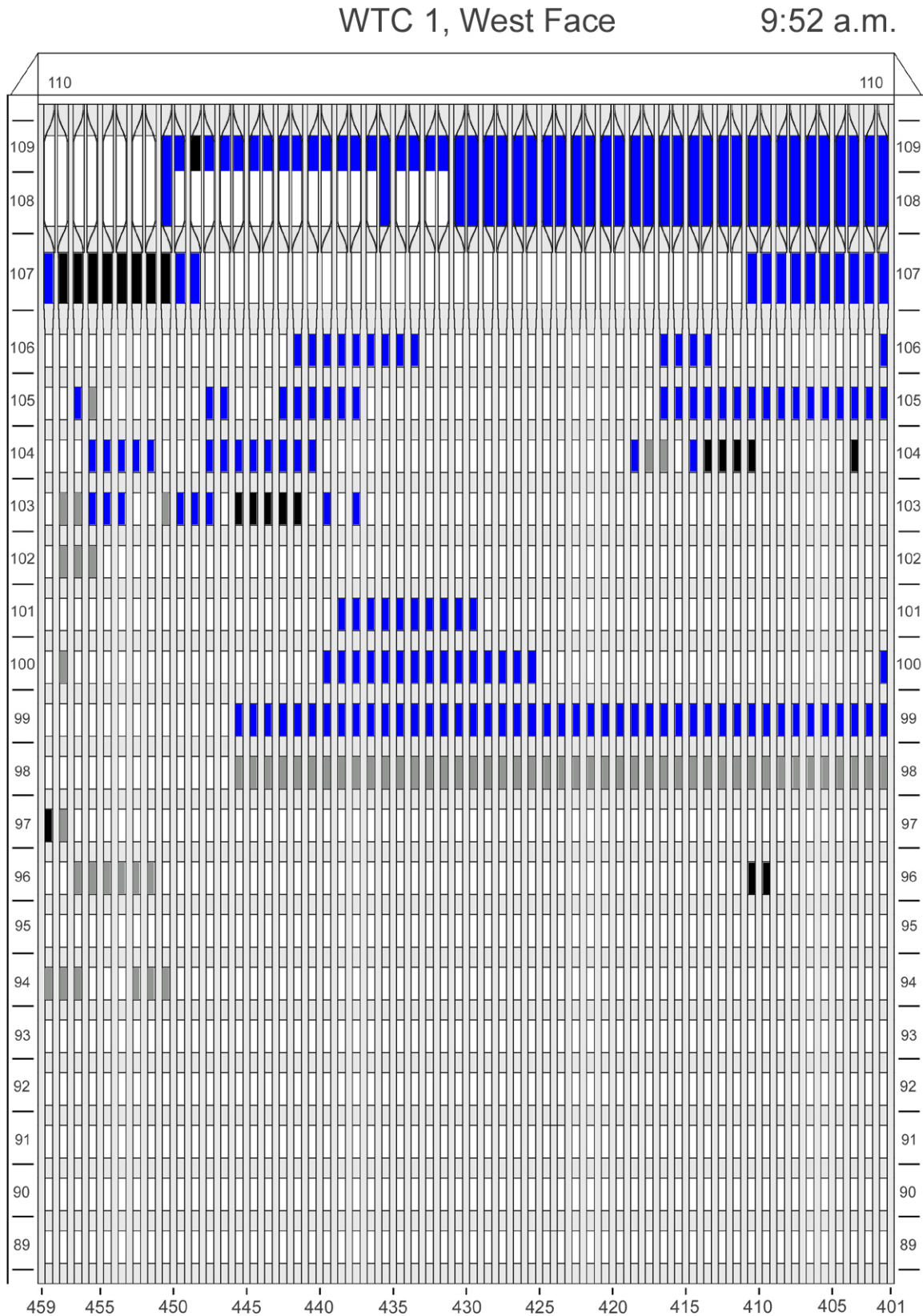
**Figure F-43. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:48 a.m. showing the condition of windows and locations of fires.**



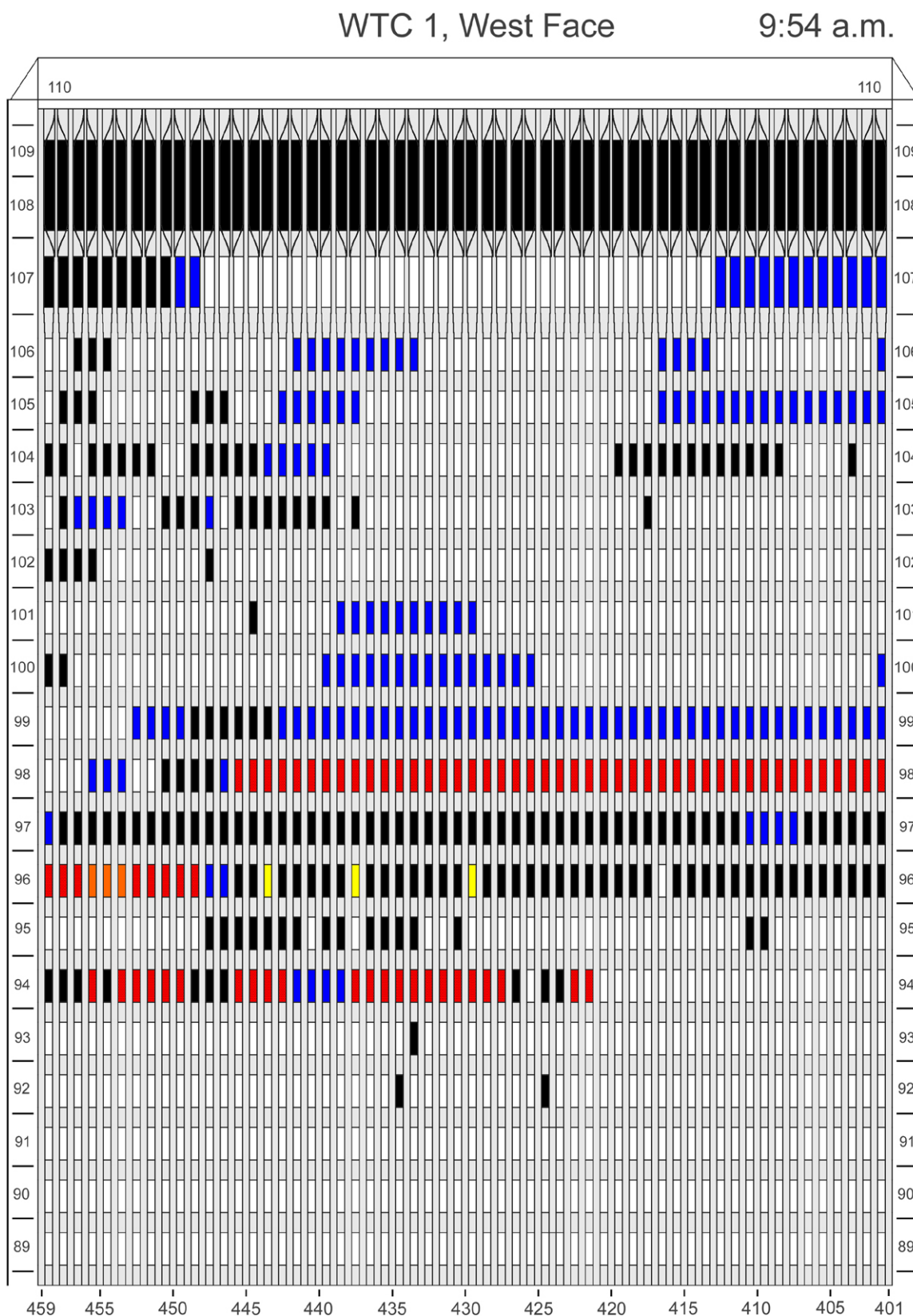
**Figure F-44. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:48 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure F-45. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:52 a.m. showing the condition of windows and locations of fires.**

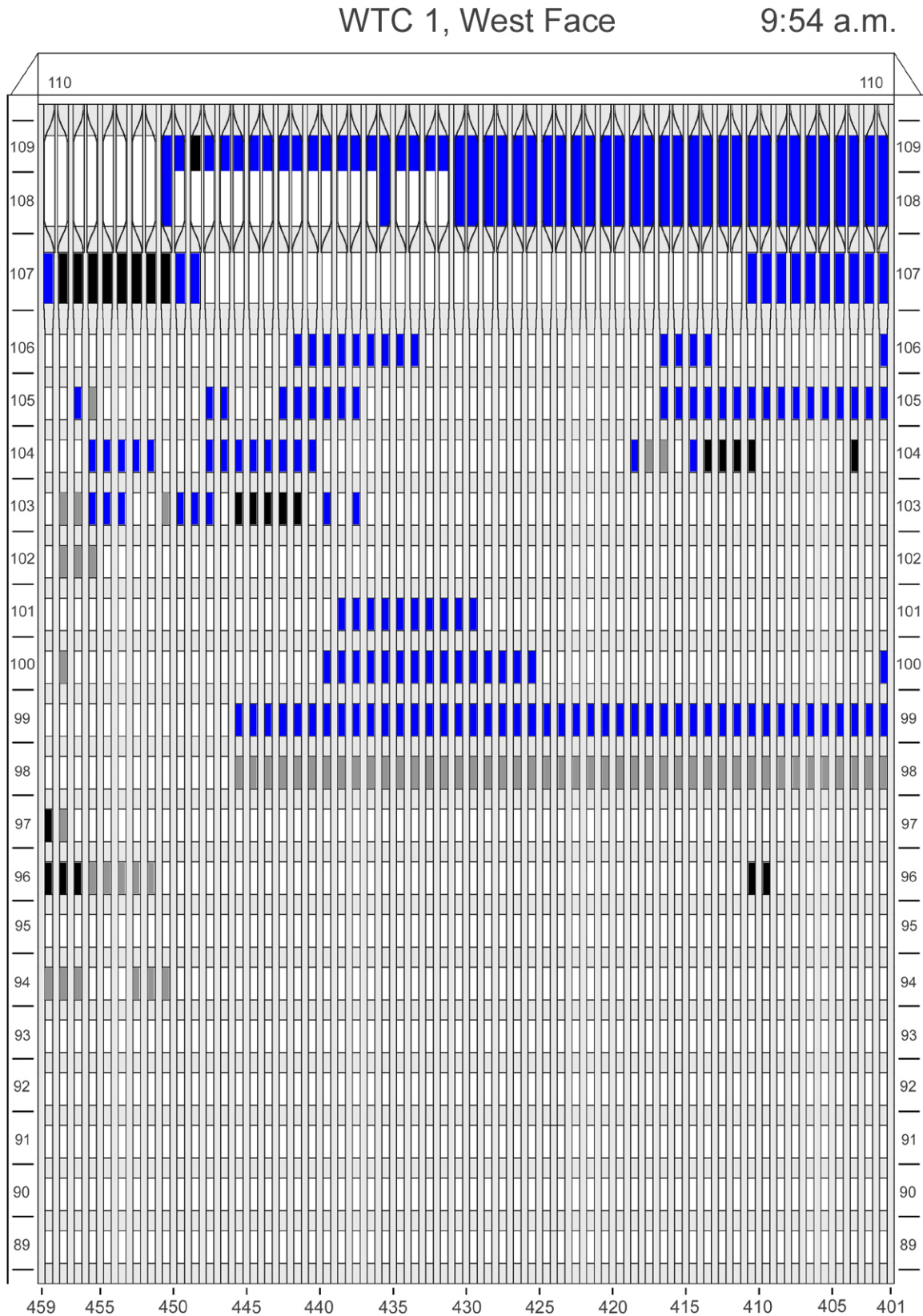


**Figure F-46. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:52 a.m. showing windows where smoke was observed and those that were hidden from view.**

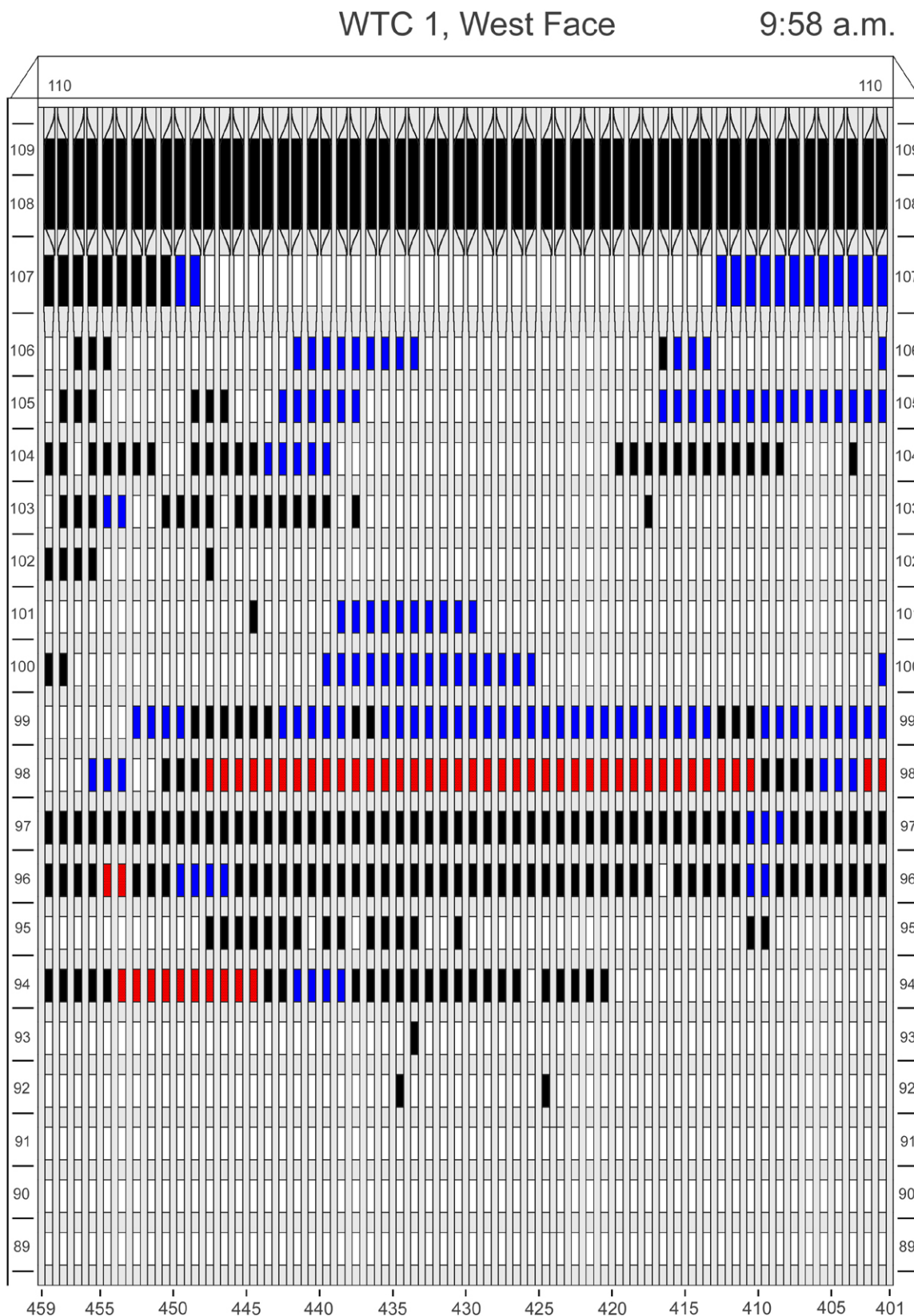


**Figure F-47. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:54 a.m. showing the condition of windows and locations of fires.**

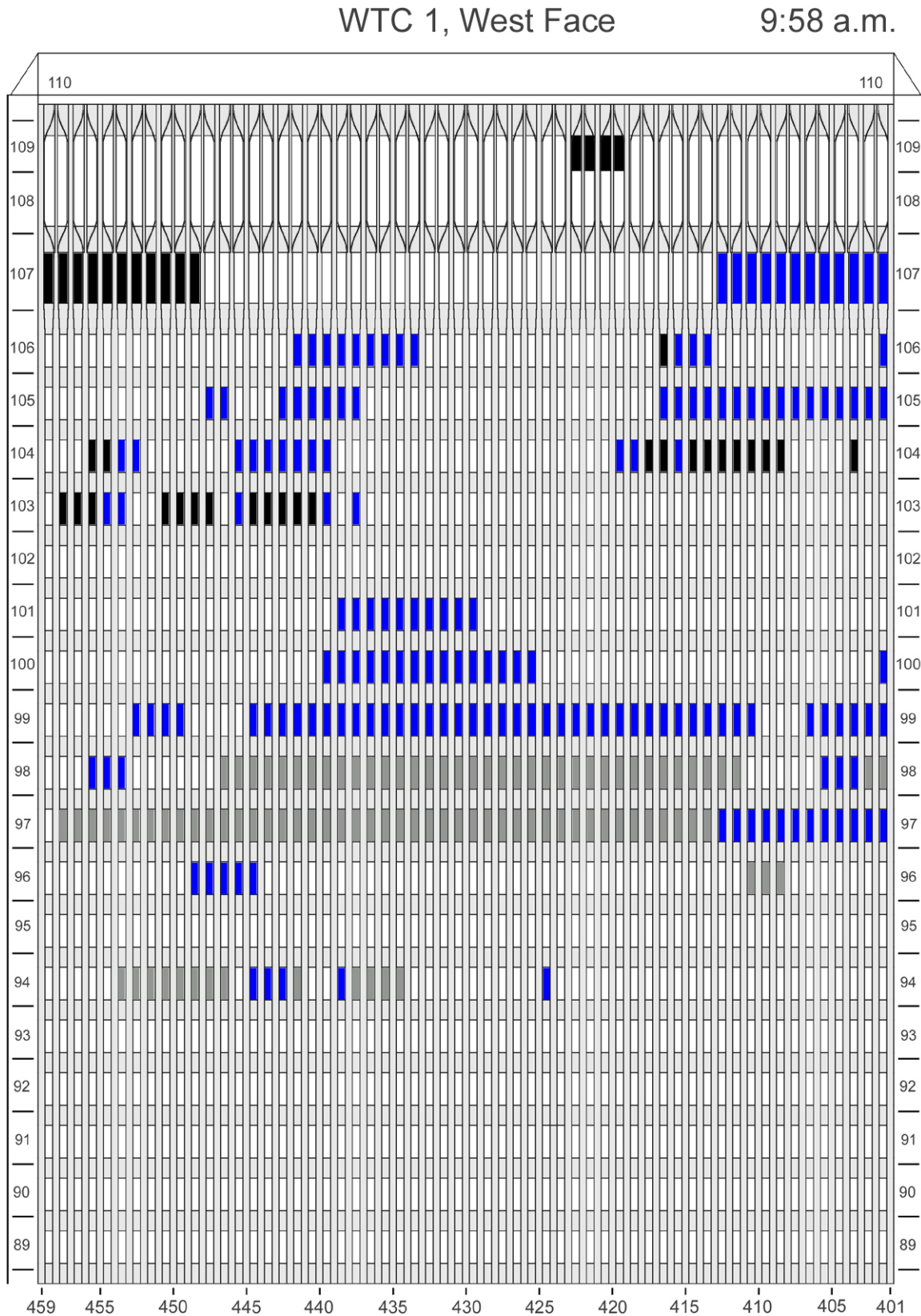




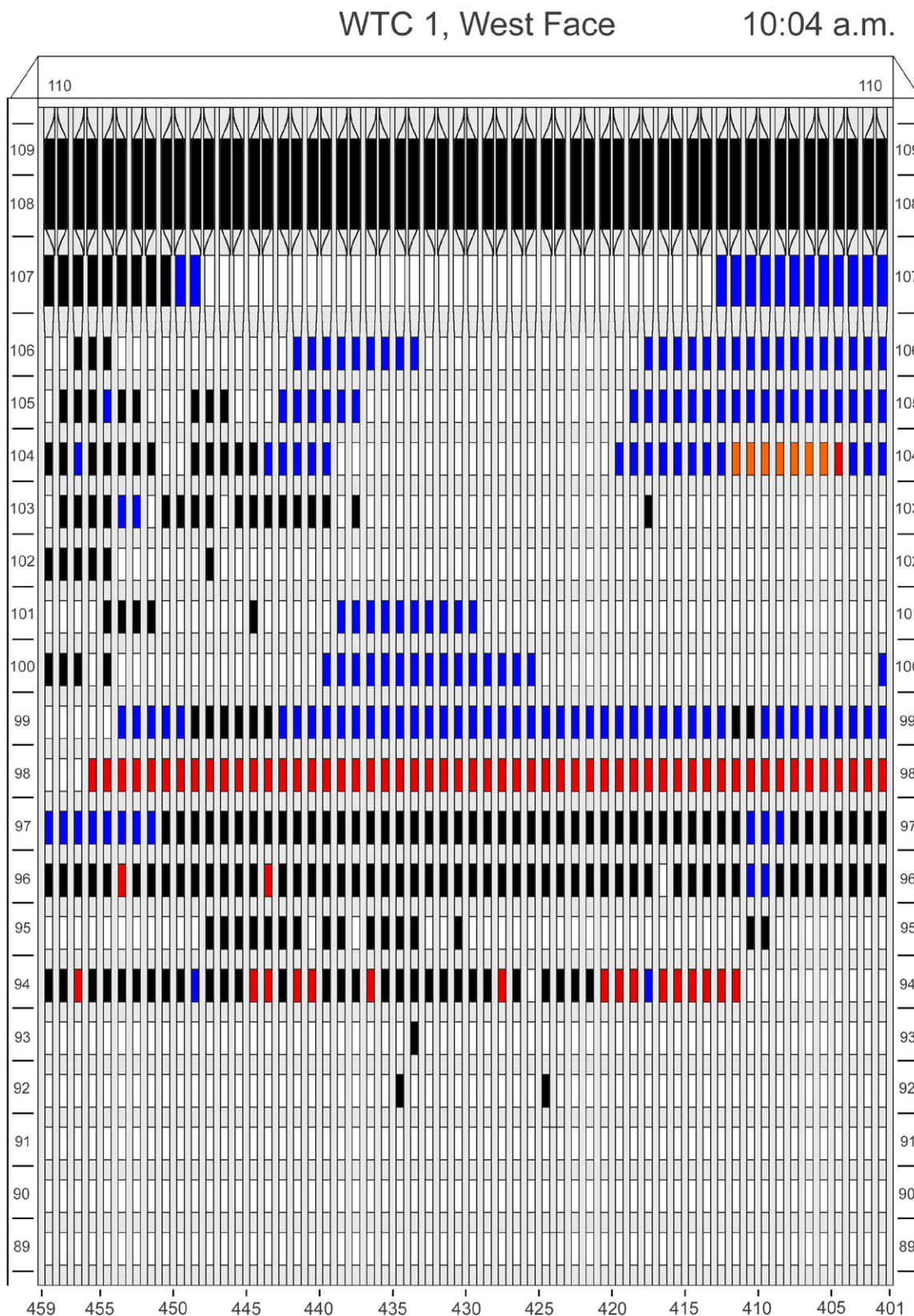
**Figure F-48. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:54 a.m. showing windows where smoke was observed and those that were hidden from view.**



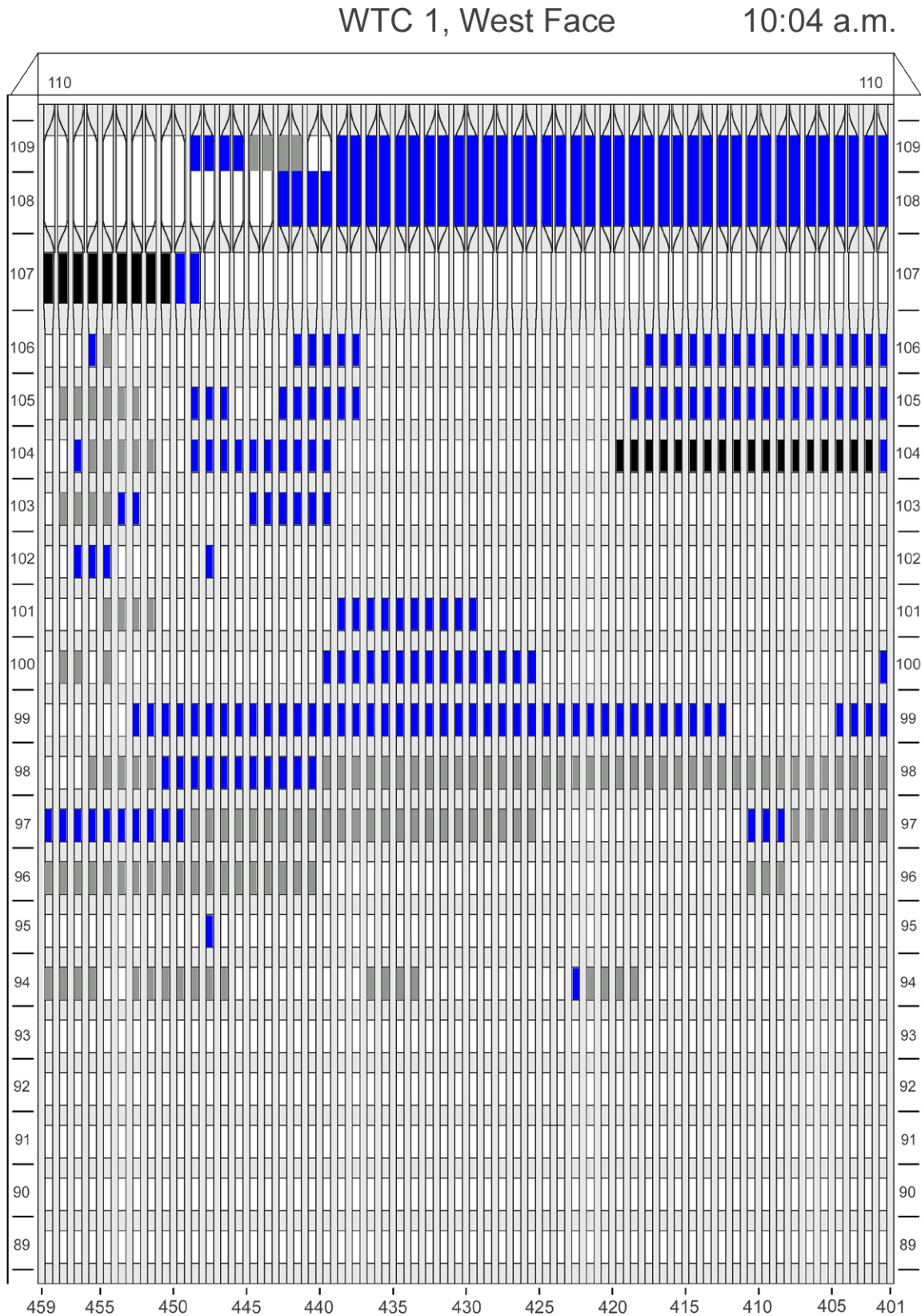
**Figure F-49. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:58 a.m. showing the condition of windows and locations of fires.**



**Figure F- 50. Diagram of the west face of WTC 1 for floors 89 to 110 at 9:58 a.m. showing windows where smoke was observed and those that were hidden from view.**

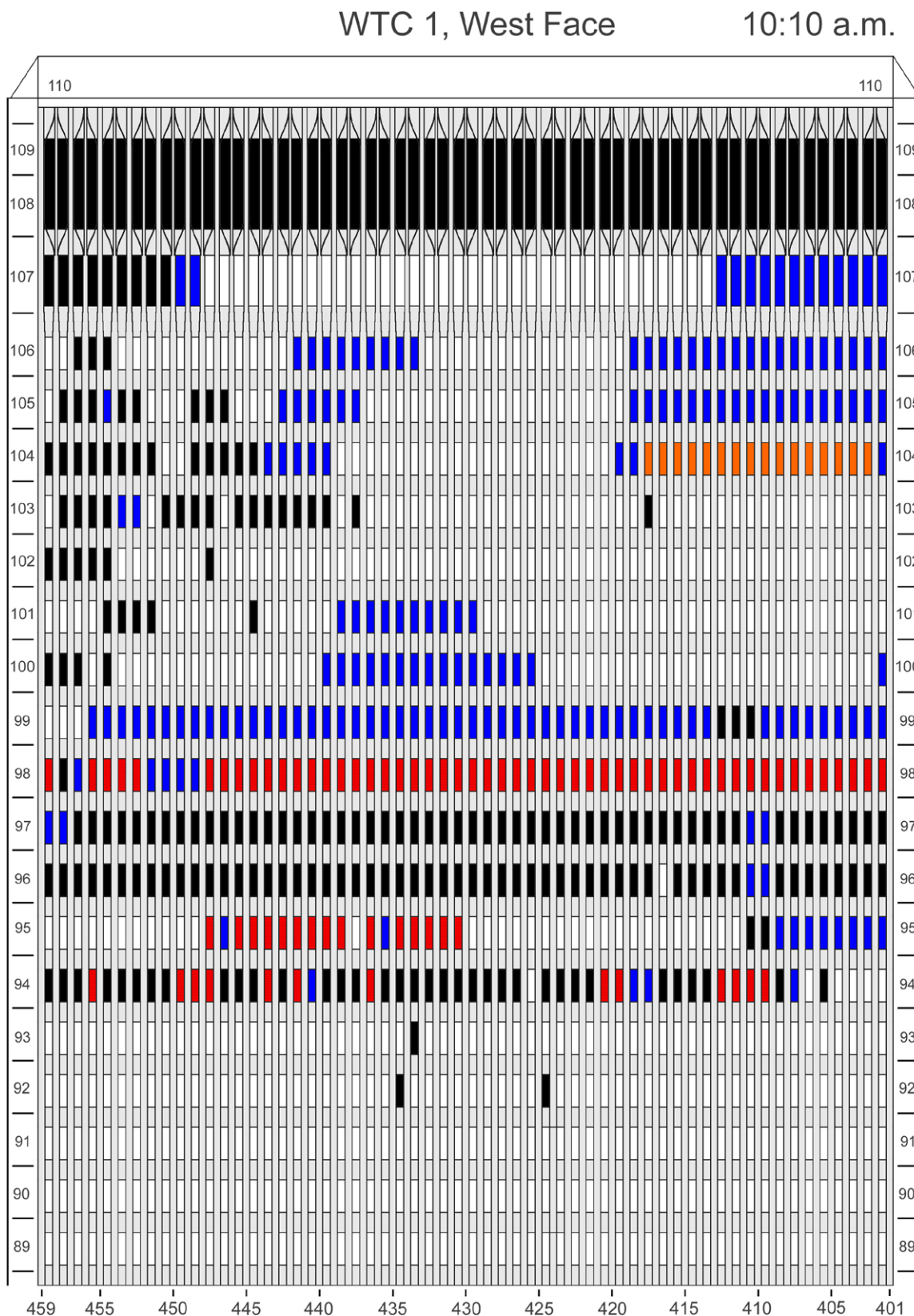


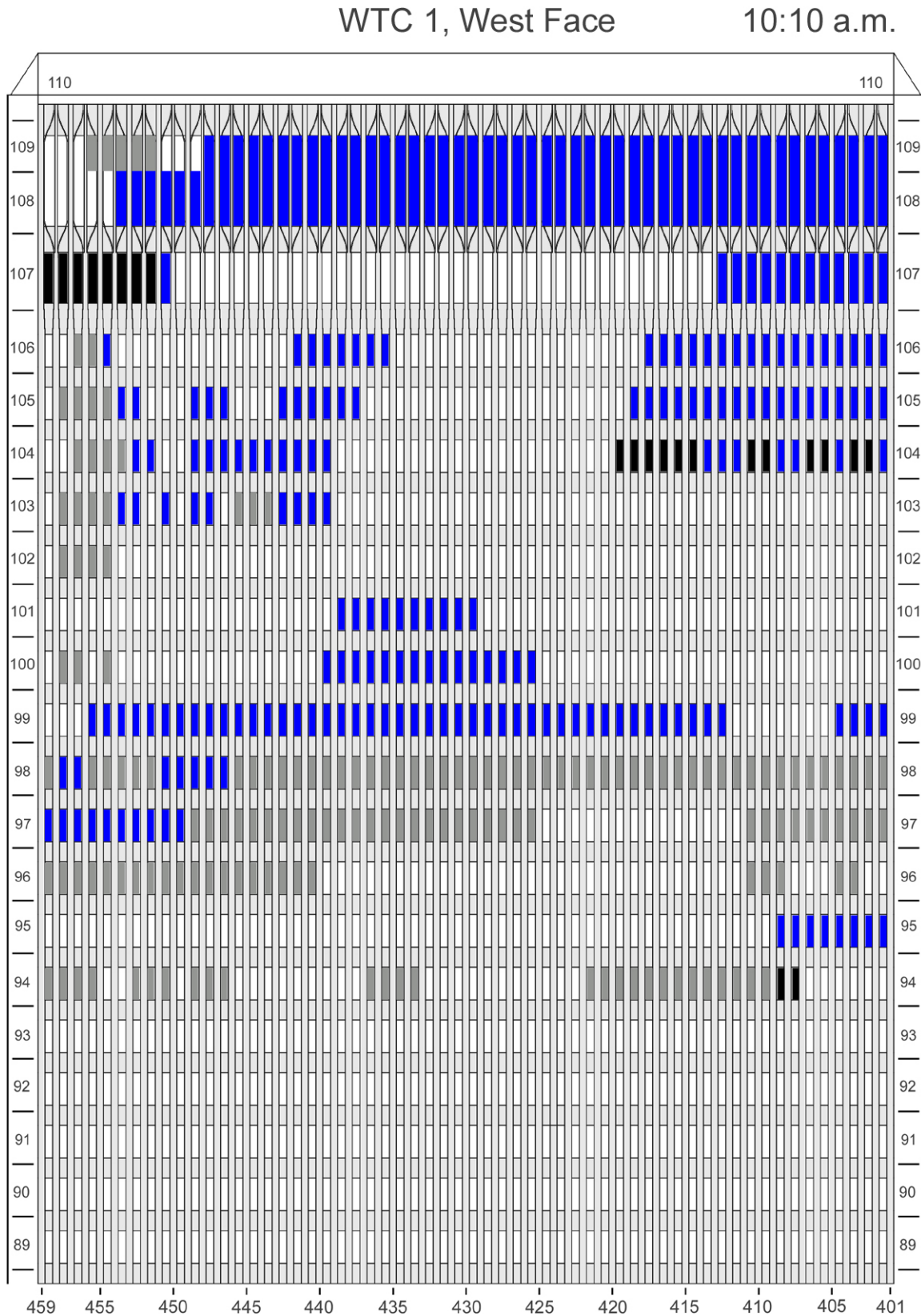
**Figure F-51. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:04 a.m. showing the condition of windows and locations of fires.**



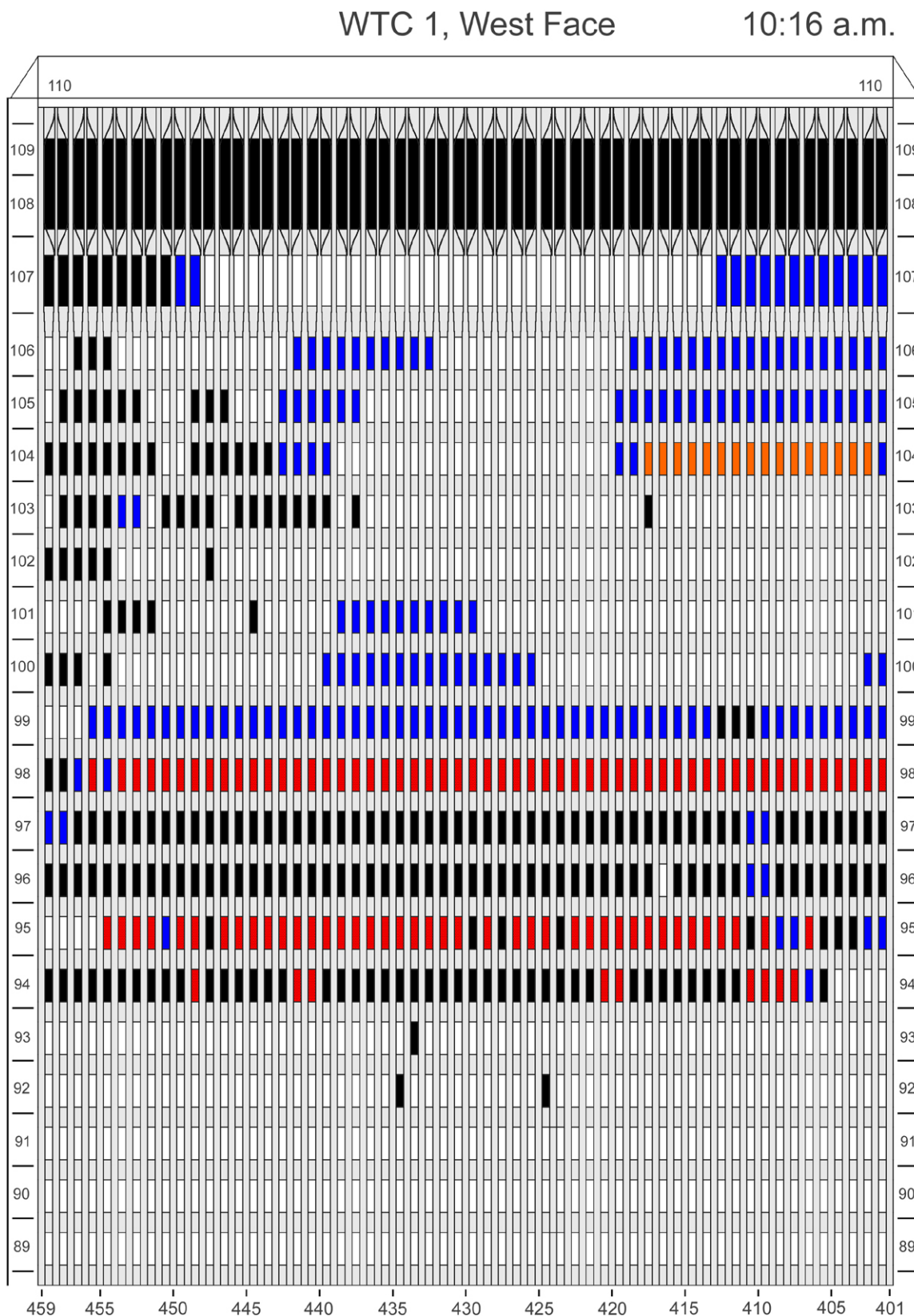
**Figure F-52. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:04 a.m. showing windows where smoke was observed and those that were hidden from view.**



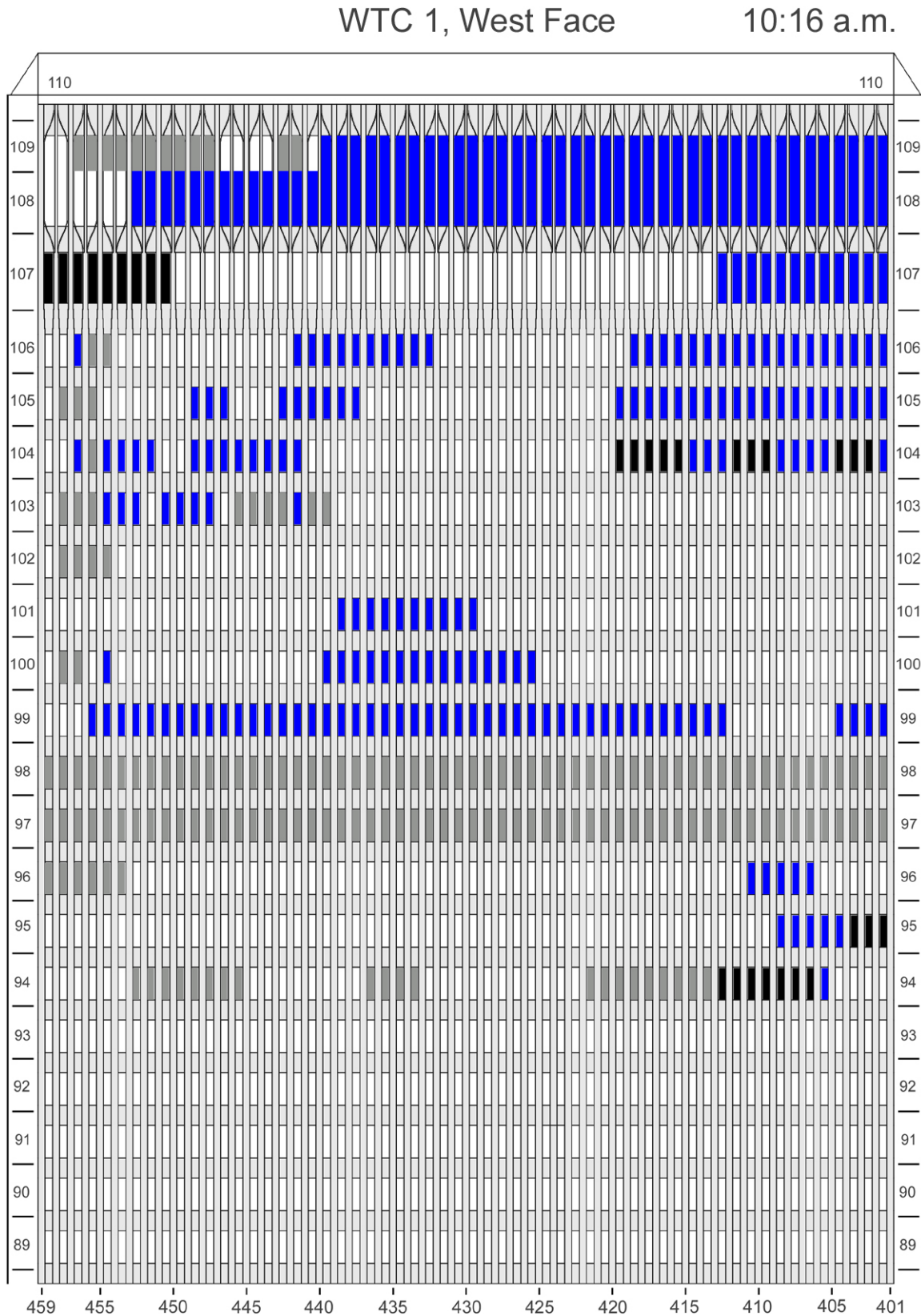




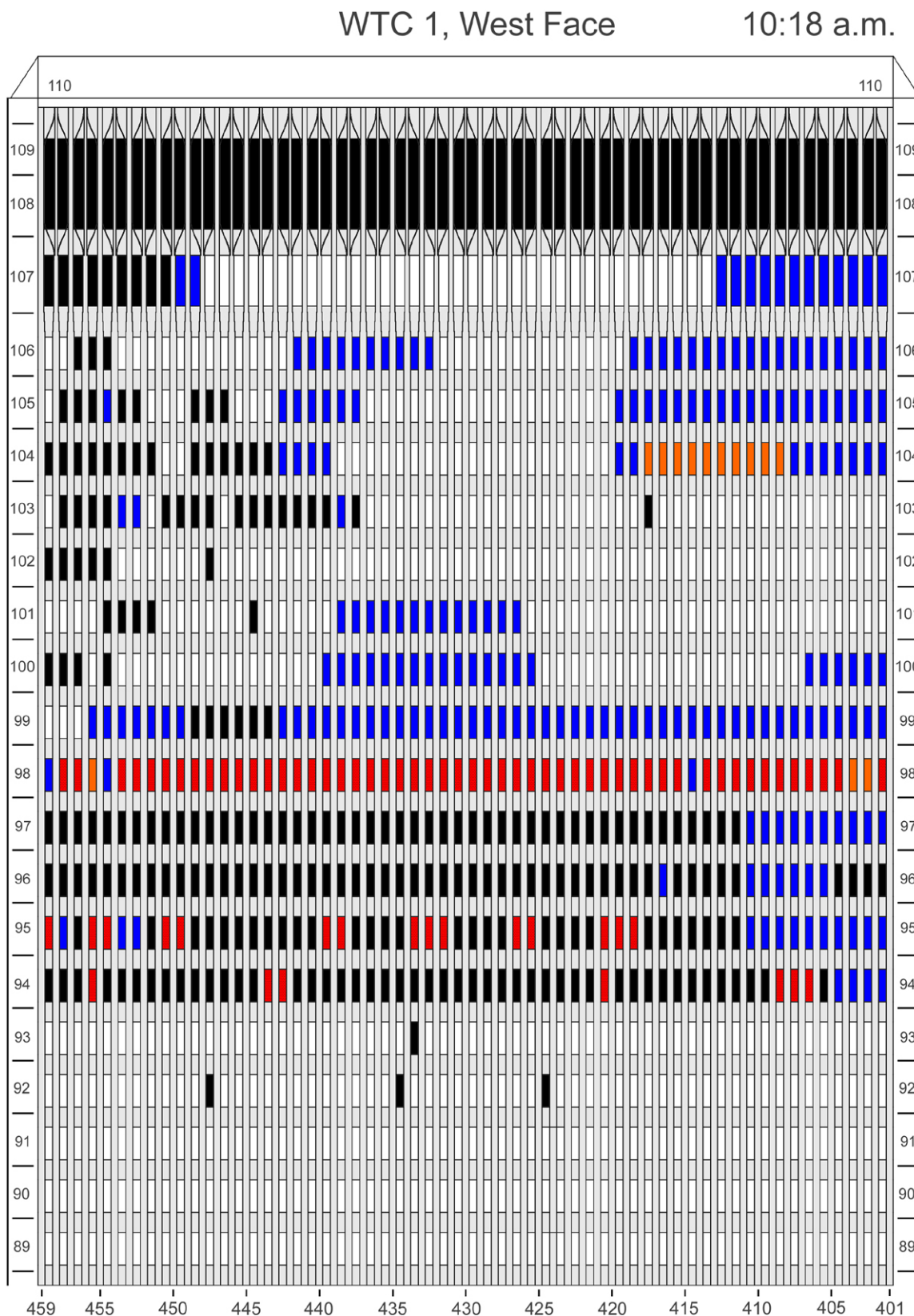
**Figure F-54. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:10 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure F-55. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:16 a.m. showing the condition of windows and locations of fires.**

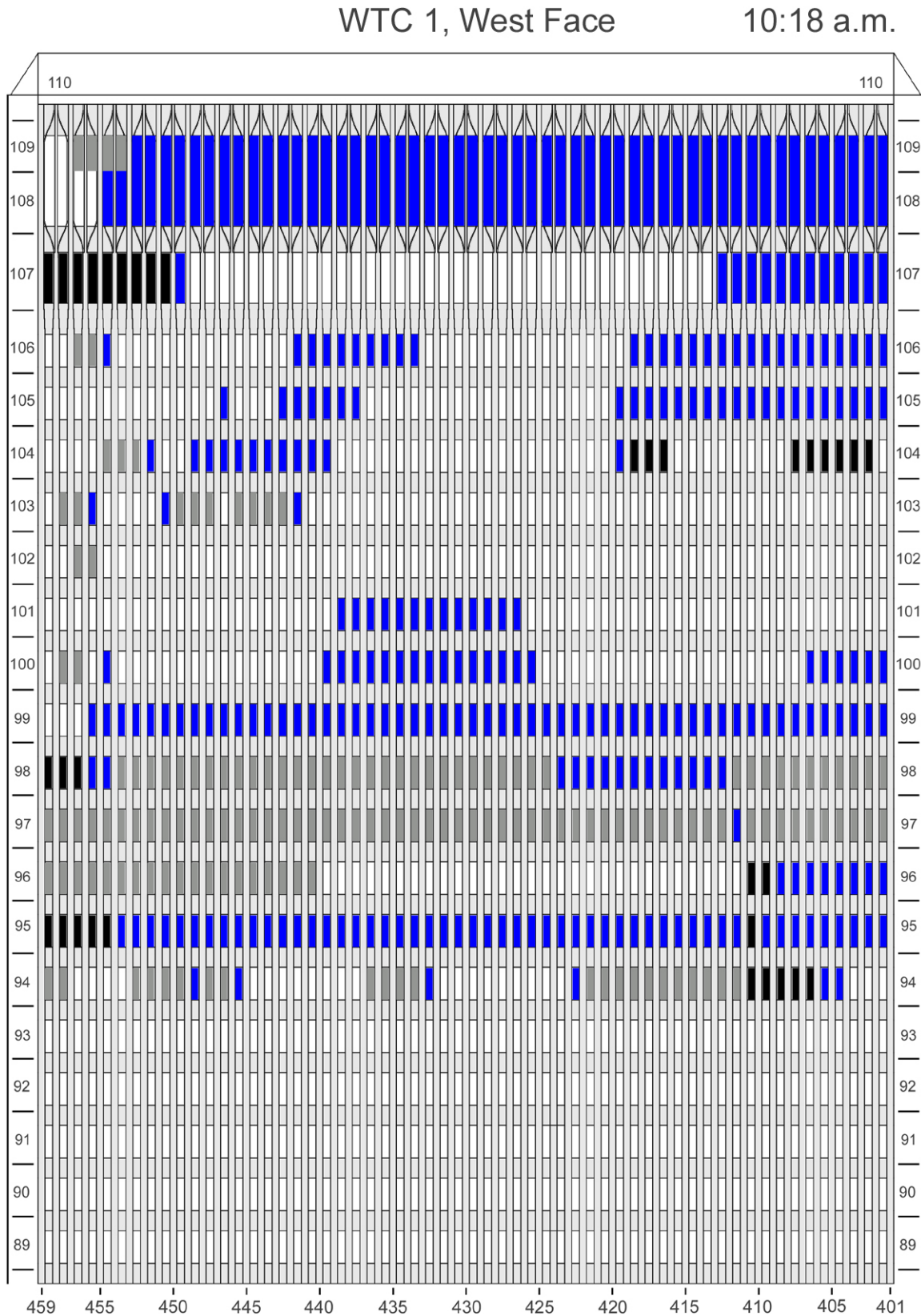


**Figure F-56. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:16 a.m. showing windows where smoke was observed and those that were hidden from view.**

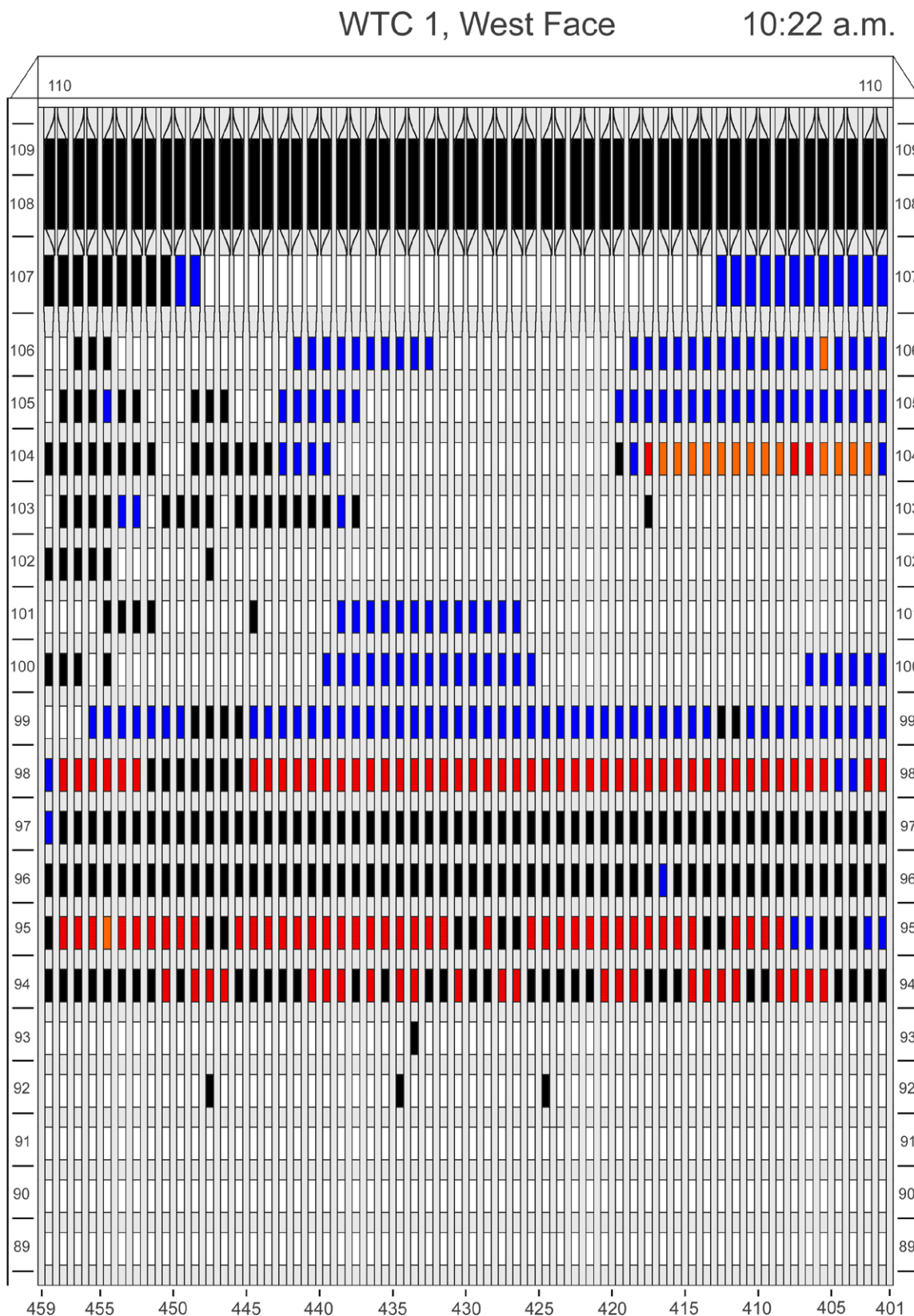


**Figure F-57. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:18 a.m. showing the condition of windows and locations of fires.**

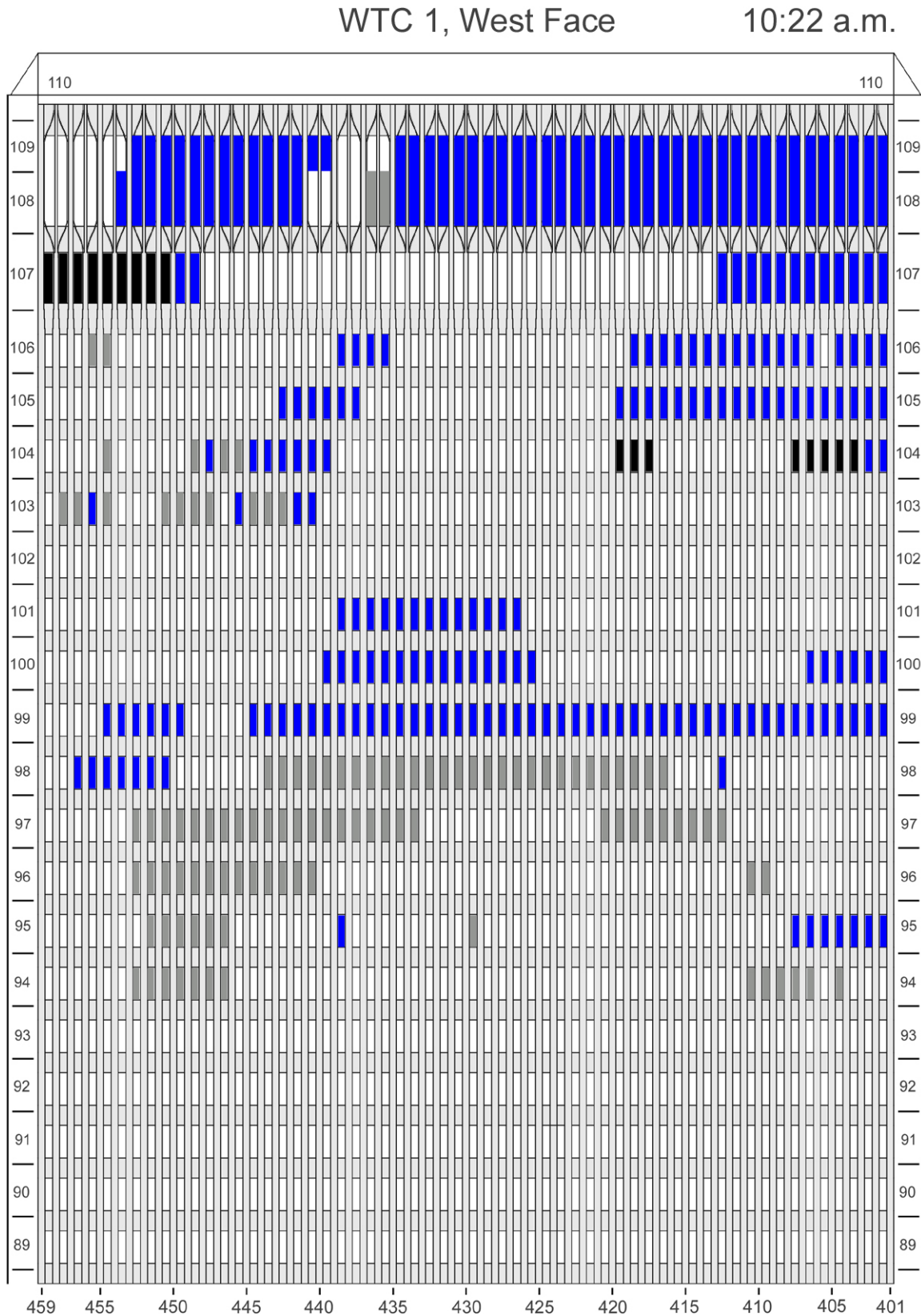




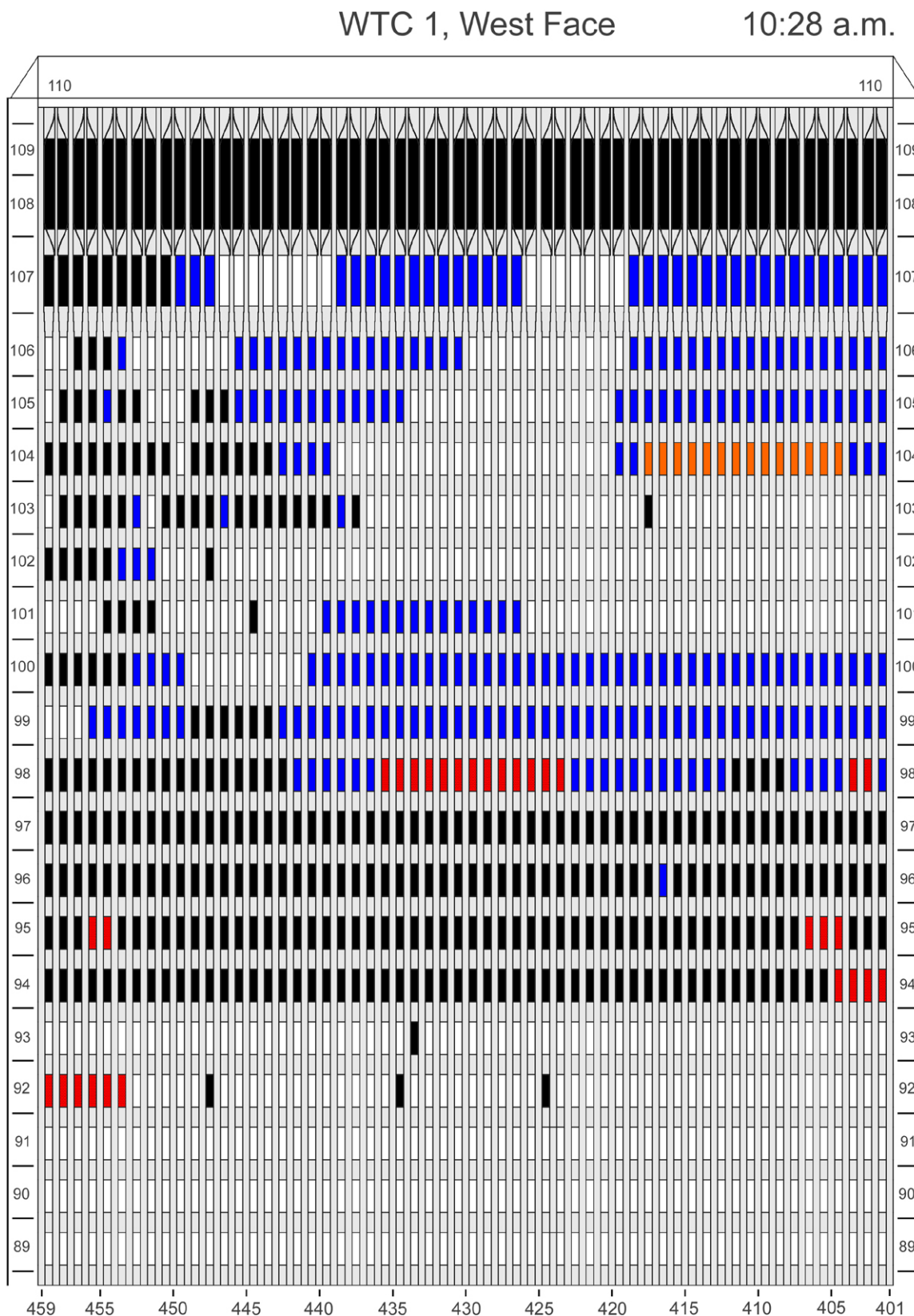
**Figure F-58. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:18 a.m. showing windows where smoke was observed and those that were hidden from view.**



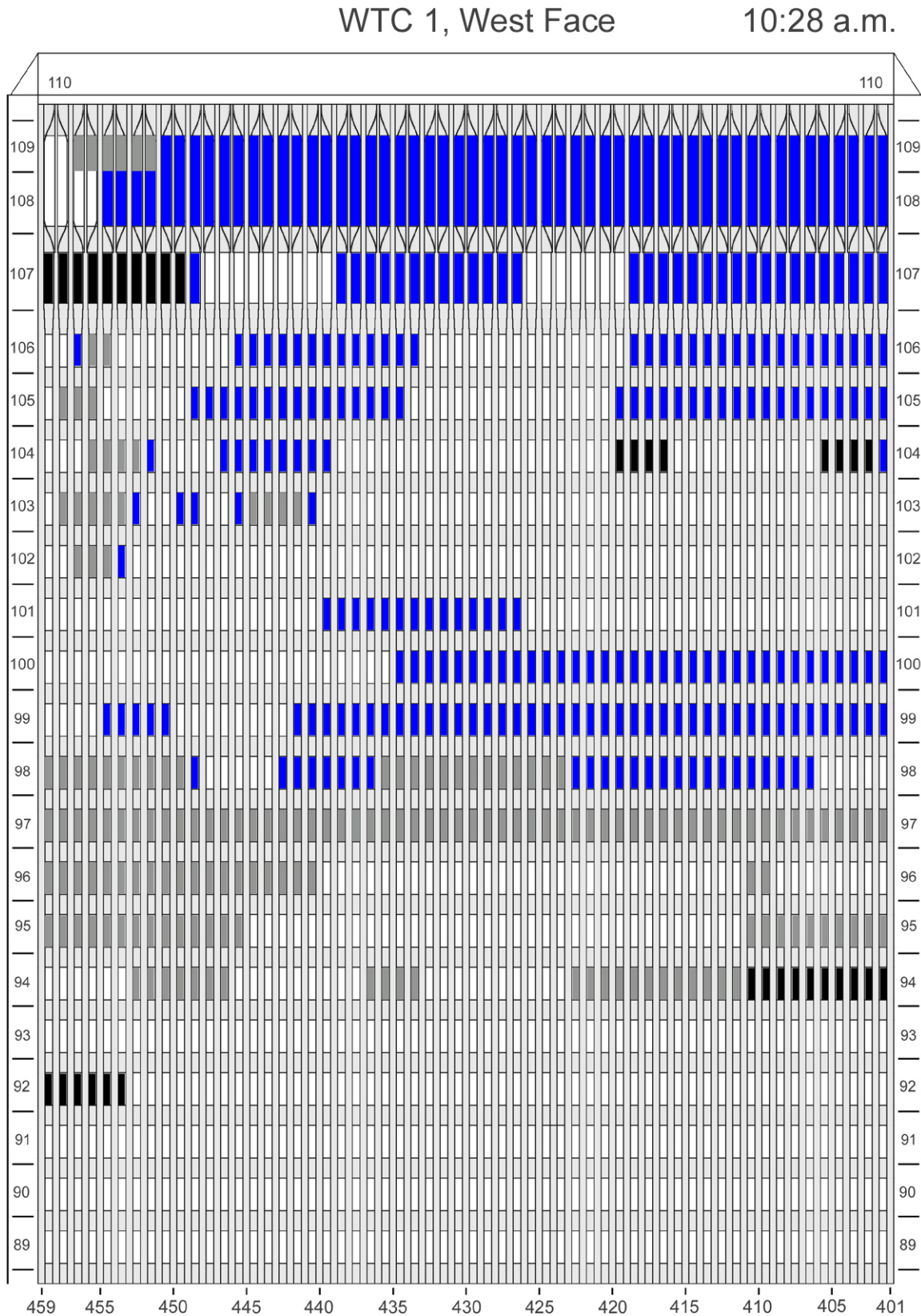
**Figure F-59. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:22 a.m. showing the condition of windows and locations of fires.**



**Figure F-60. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:22 a.m. showing windows where smoke was observed and those that were hidden from view.**



**Figure F-61. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:28 a.m. showing the condition of windows and locations of fires.**



**Figure F-62. Diagram of the west face of WTC 1 for floors 89 to 110 at 10:28 a.m. showing windows where smoke was observed and those that were hidden from view.**













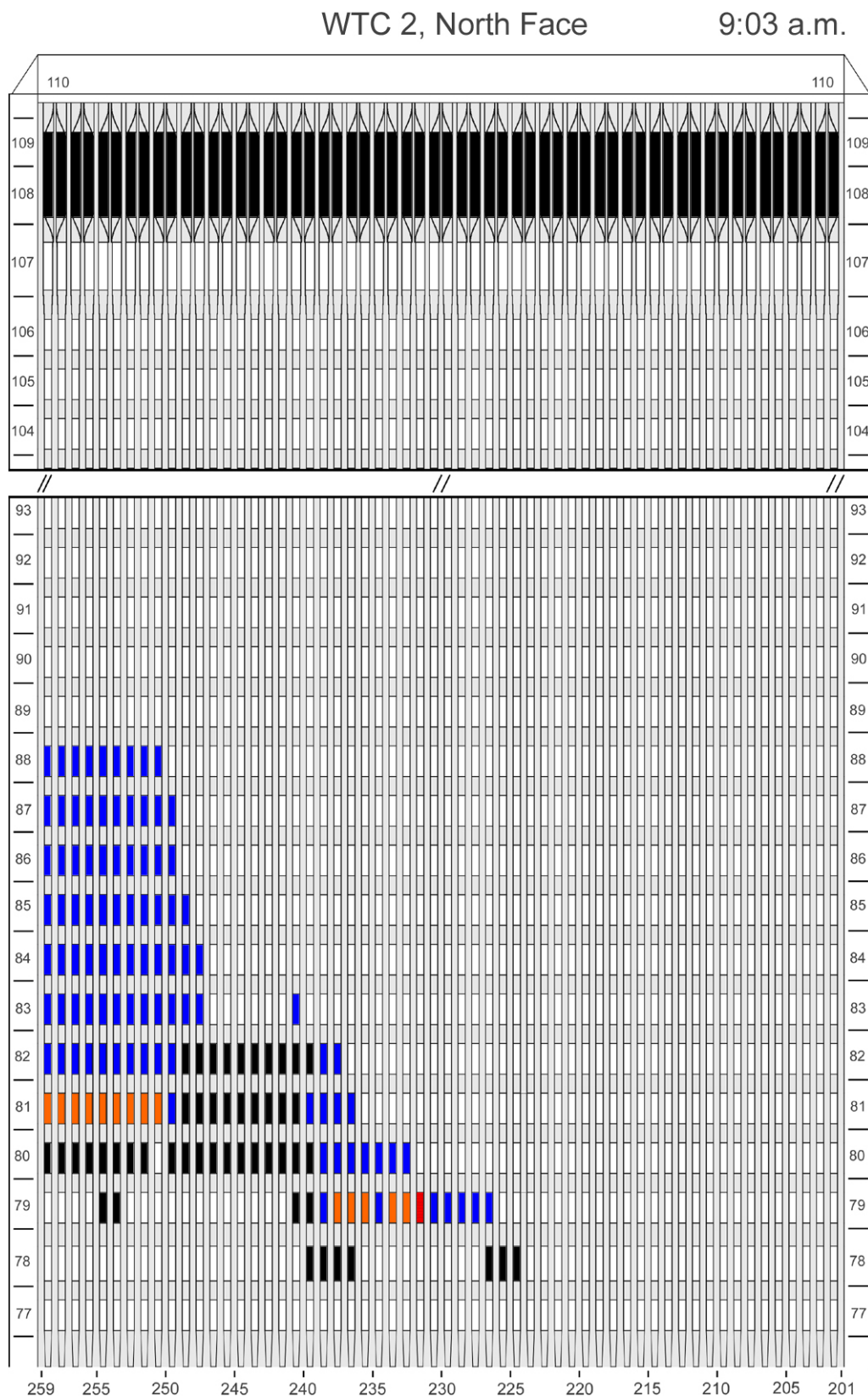
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## Appendix G

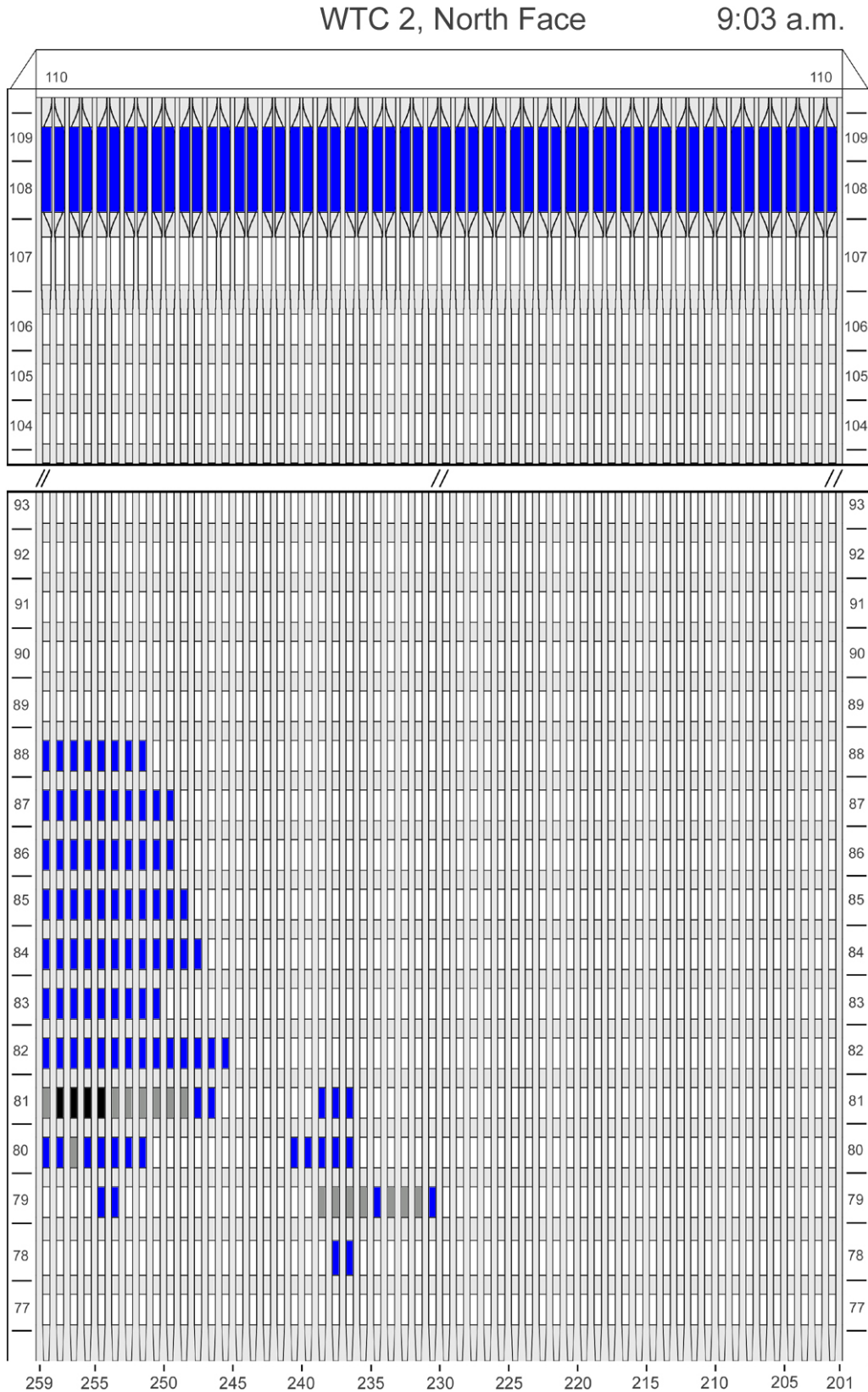
# WTC 2 NORTH FACE COMBINED FIRE AND WINDOW CONDITION AND WINDOW SMOKE CONDITION

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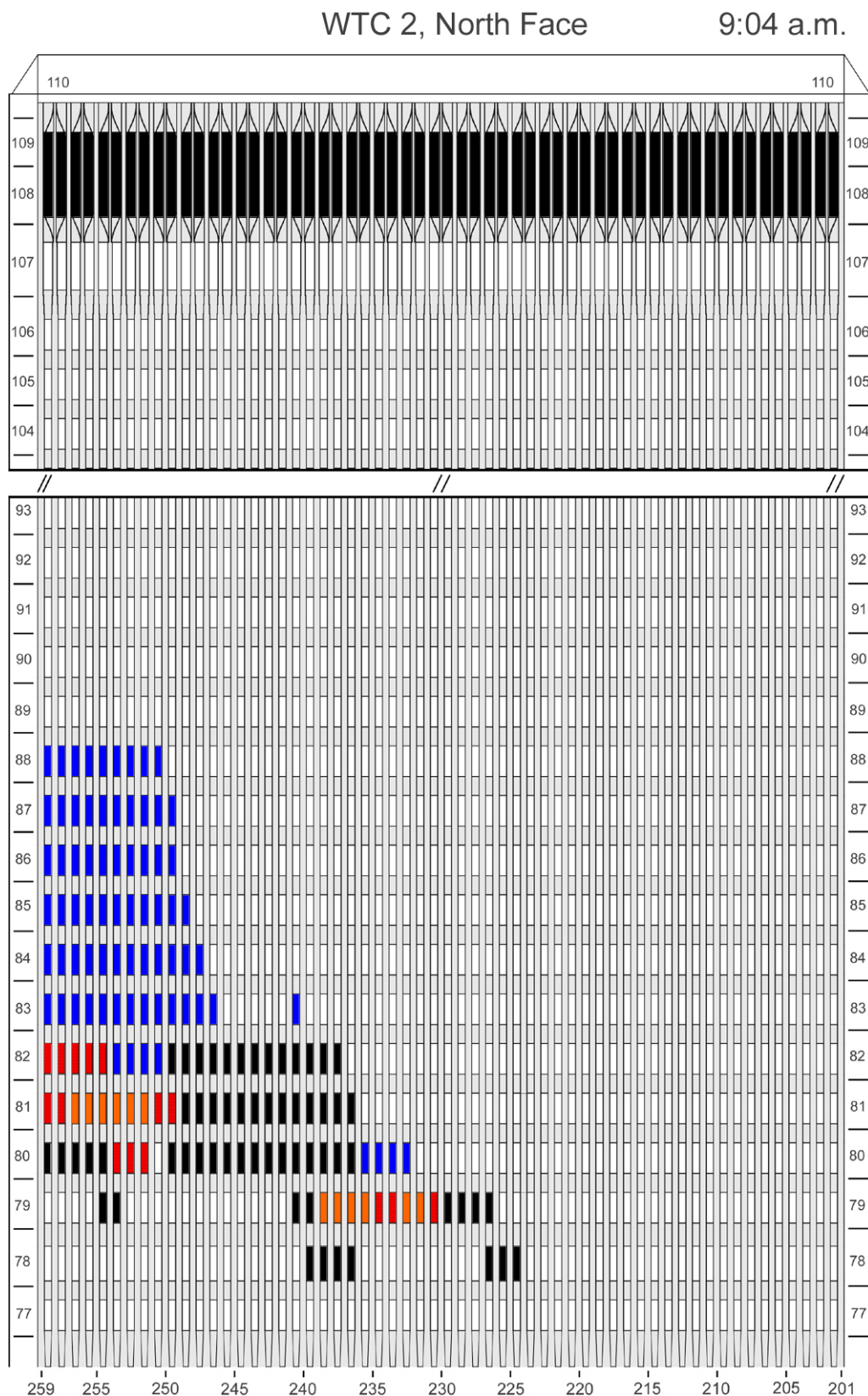
This appendix provides visual representations of the data contained in data sheets describing observations of fire, smoke, and window condition on a window-by-window basis as a function of time for the north face of WTC 2. The data for window condition and fire observations are combined into single representations, with the data for fire taking precedence. Observations are represented using the key provided in Figure 5-1 as follows:  - window glass in place,  - window open,  - spot fire,  - fire visible inside,  - external flaming, and  - not visible. The data for smoke are shown in separate figures using the key from Figure 5-1 as follows:  - no smoke visible,  - light smoke,  - heavy smoke, and  - not visible. For a given time, the window condition and fire data are shown first.



**Figure G-1. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:03 a.m. showing the condition of windows and locations of fires.**

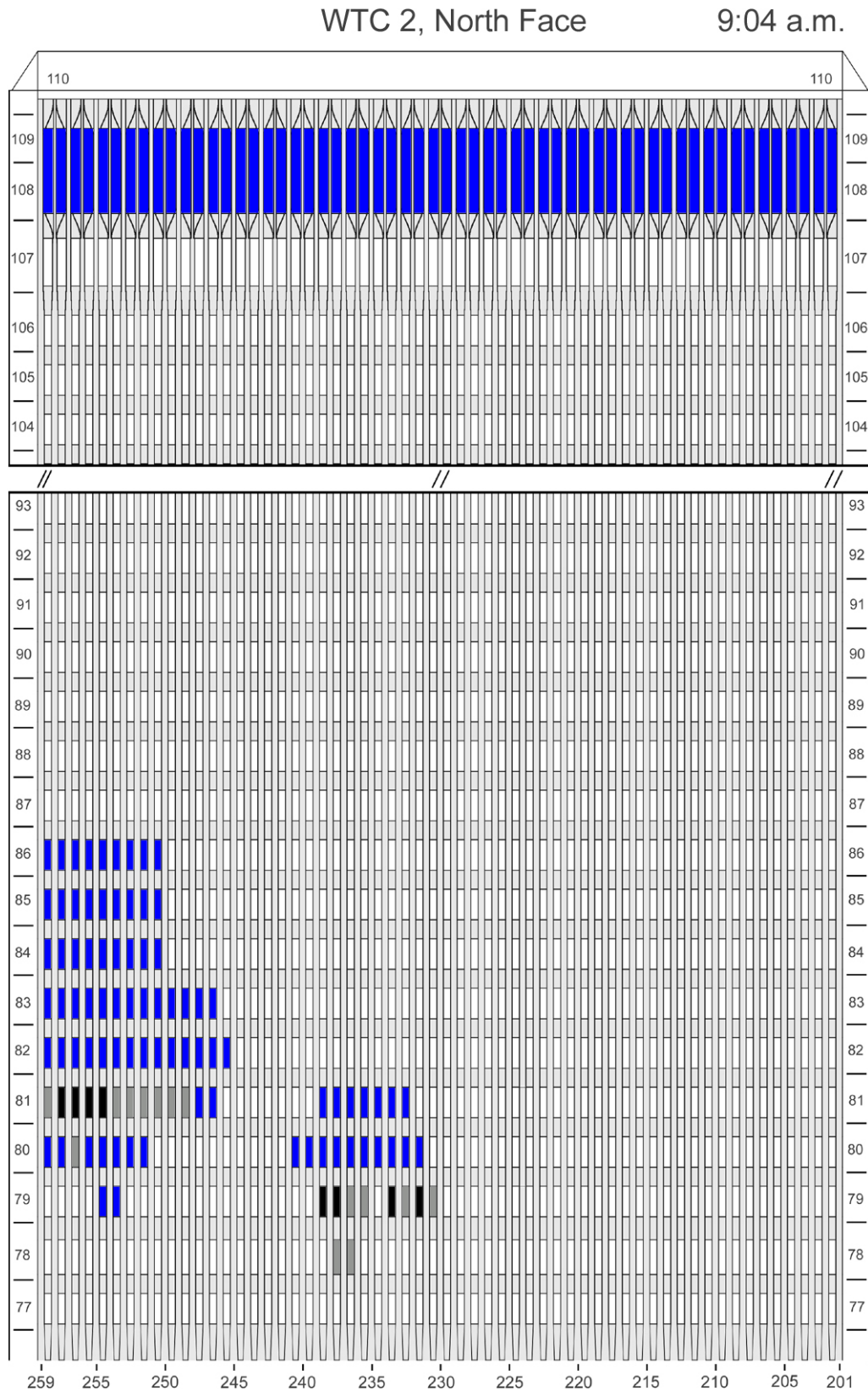


**Figure G-2. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:03 a.m. showing windows where smoke was observed and those hidden from view.**

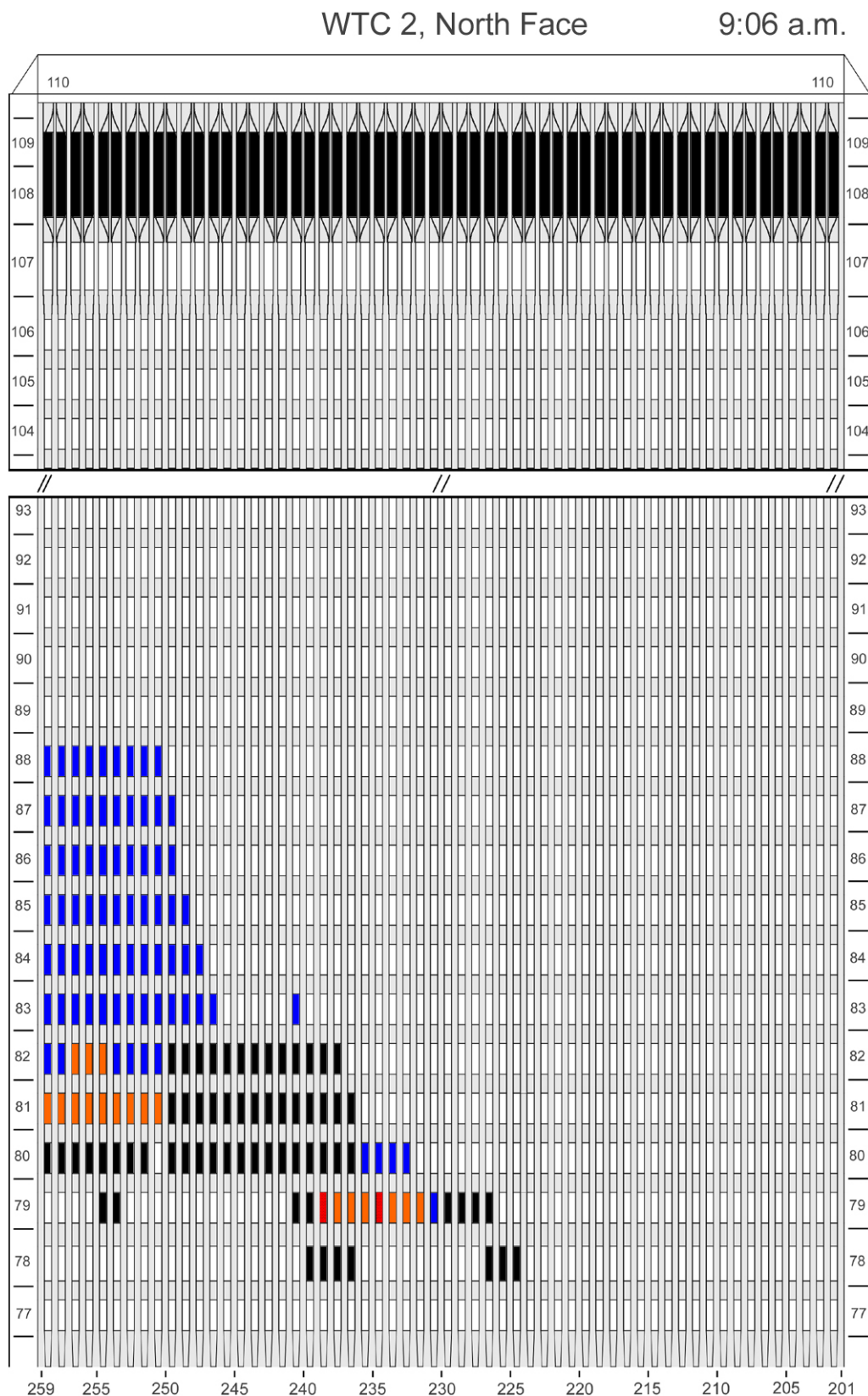


**Figure G-3. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:04 a.m. showing the condition of windows and locations of fires.**

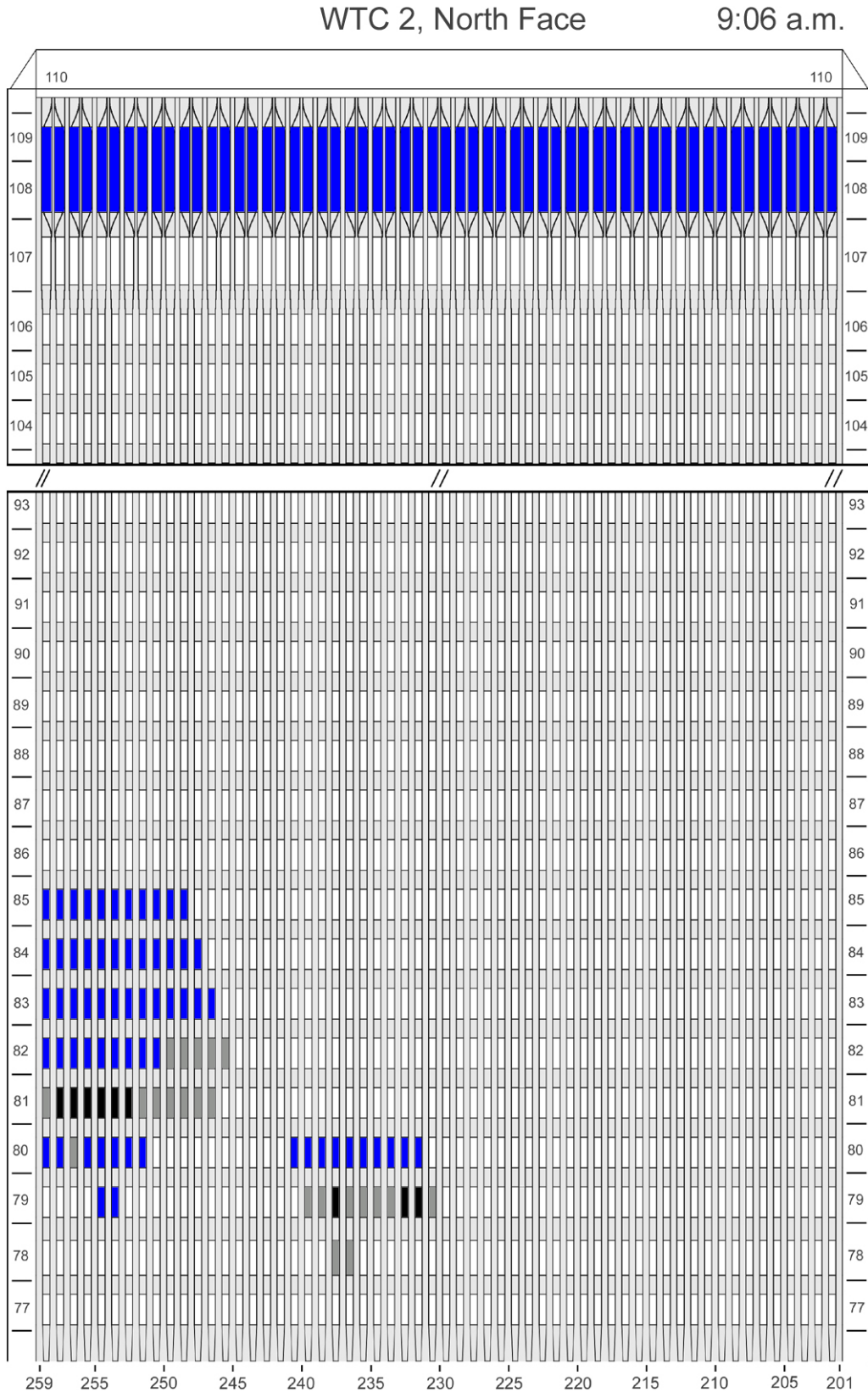




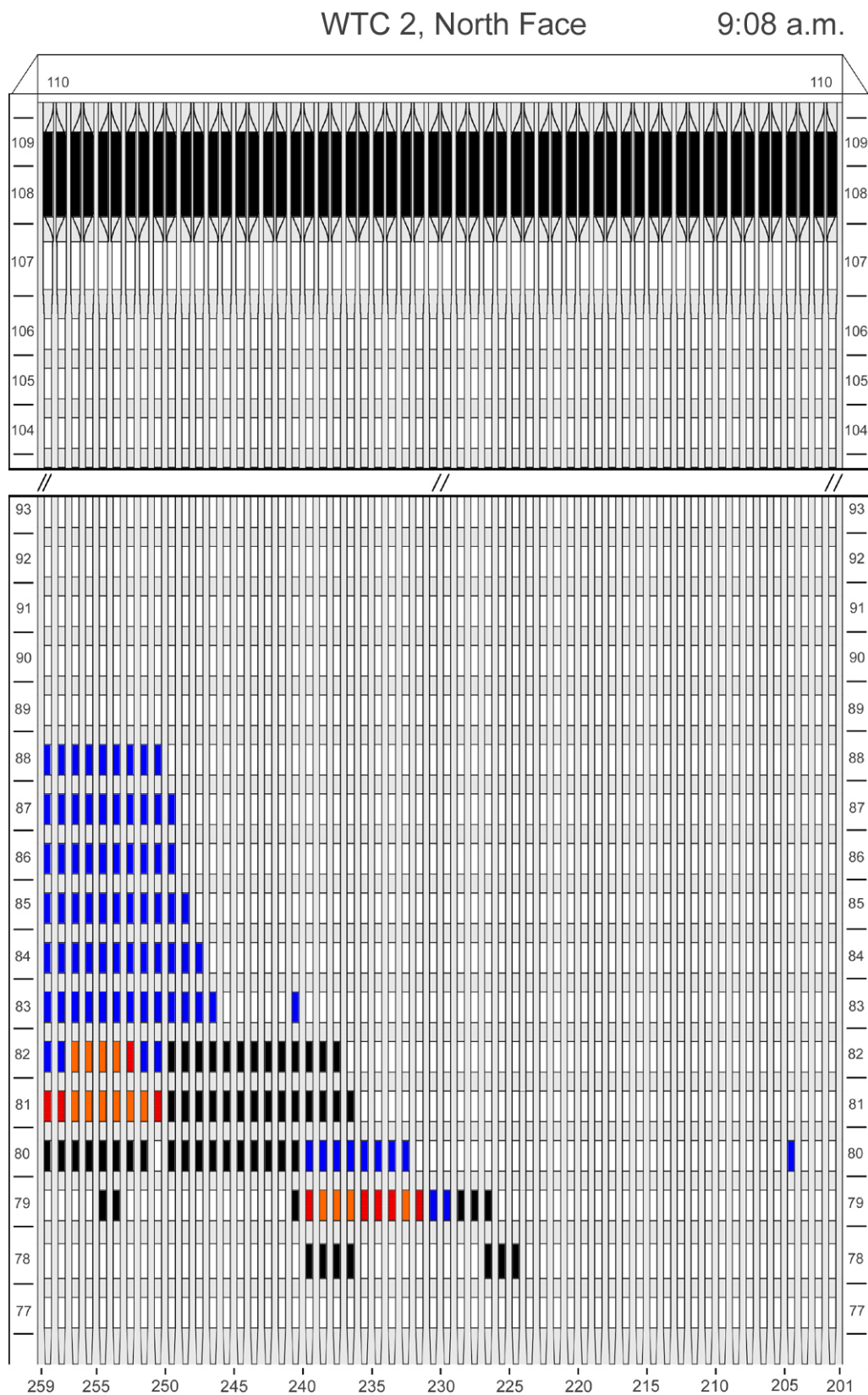
**Figure G-4. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:04 a.m. showing windows where smoke was observed and those hidden from view.**



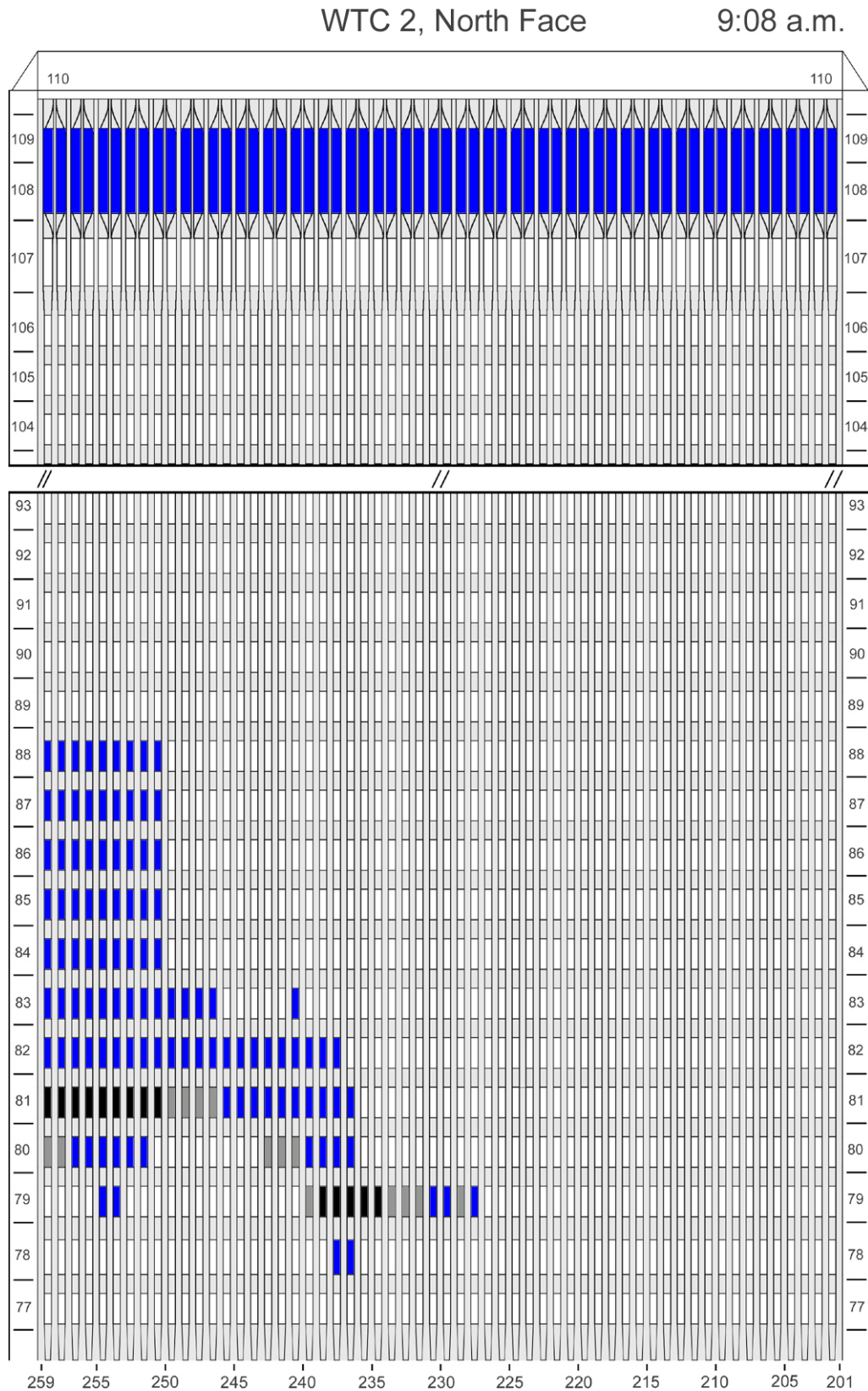
**Figure G-5. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:06 a.m. showing the condition of windows and locations of fires.**



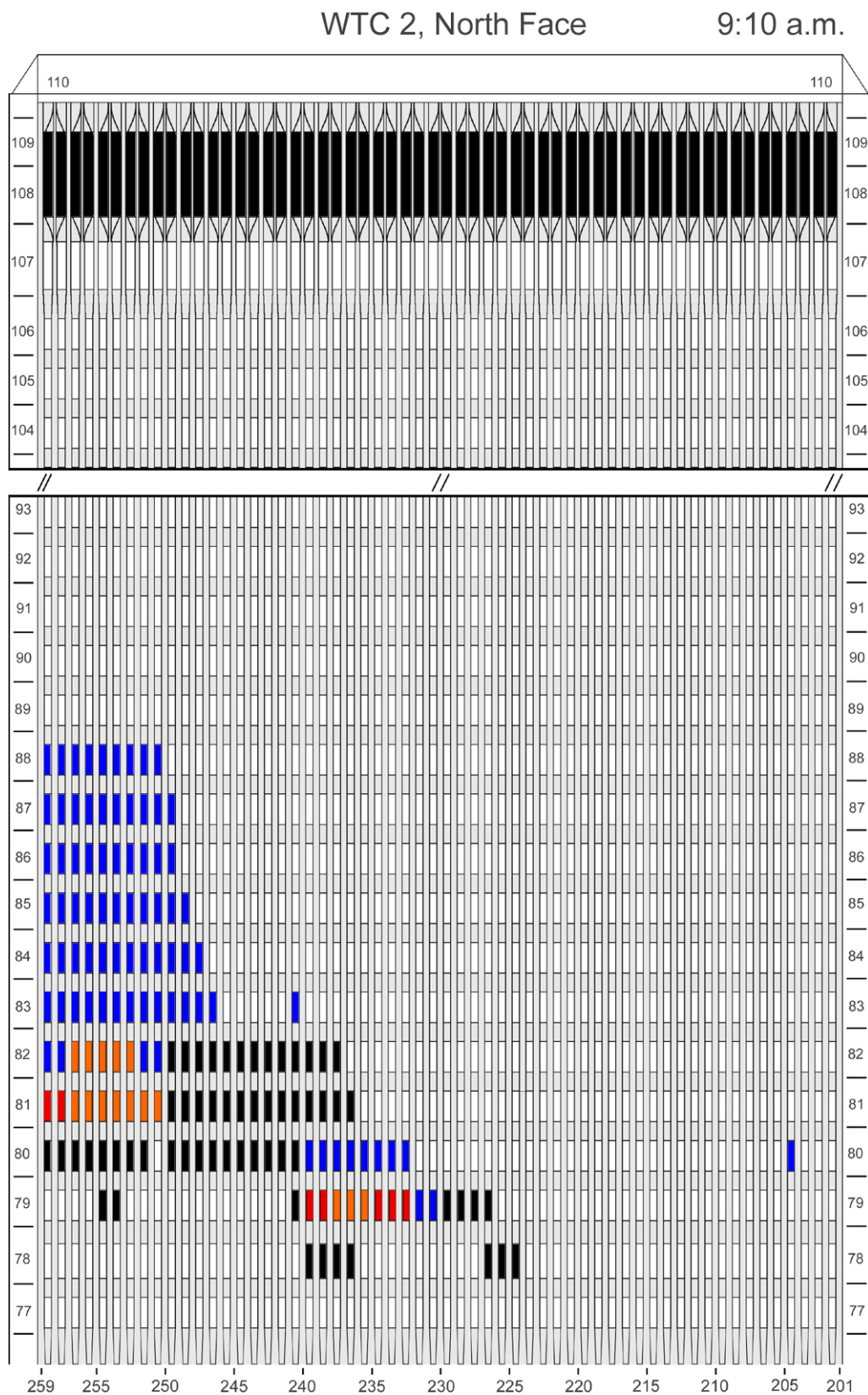
**Figure G-6. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:06 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-7. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:08 a.m. showing the condition of windows and locations of fires.**

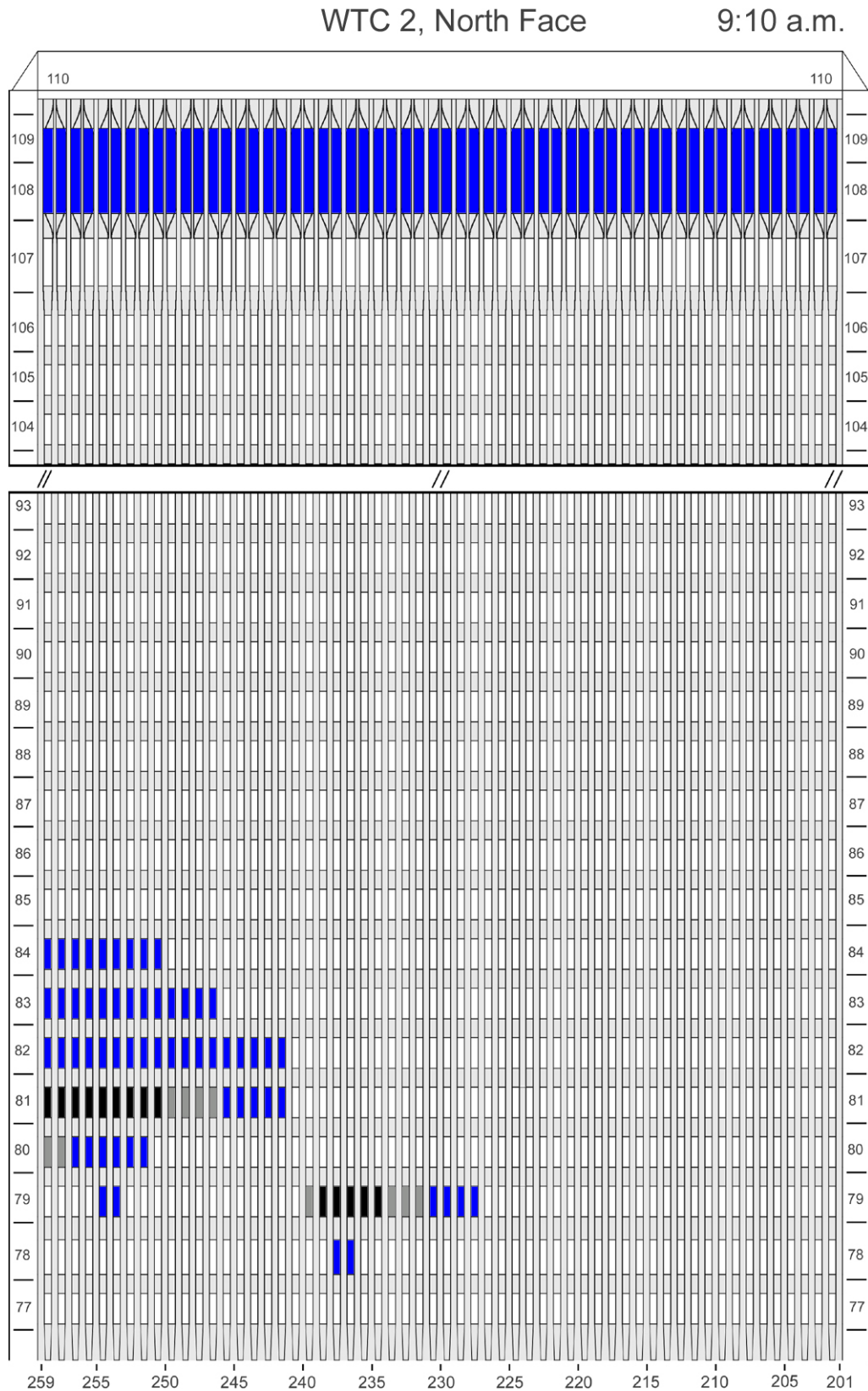


**Figure G-8. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:08 a.m. showing windows where smoke was observed and those hidden from view.**

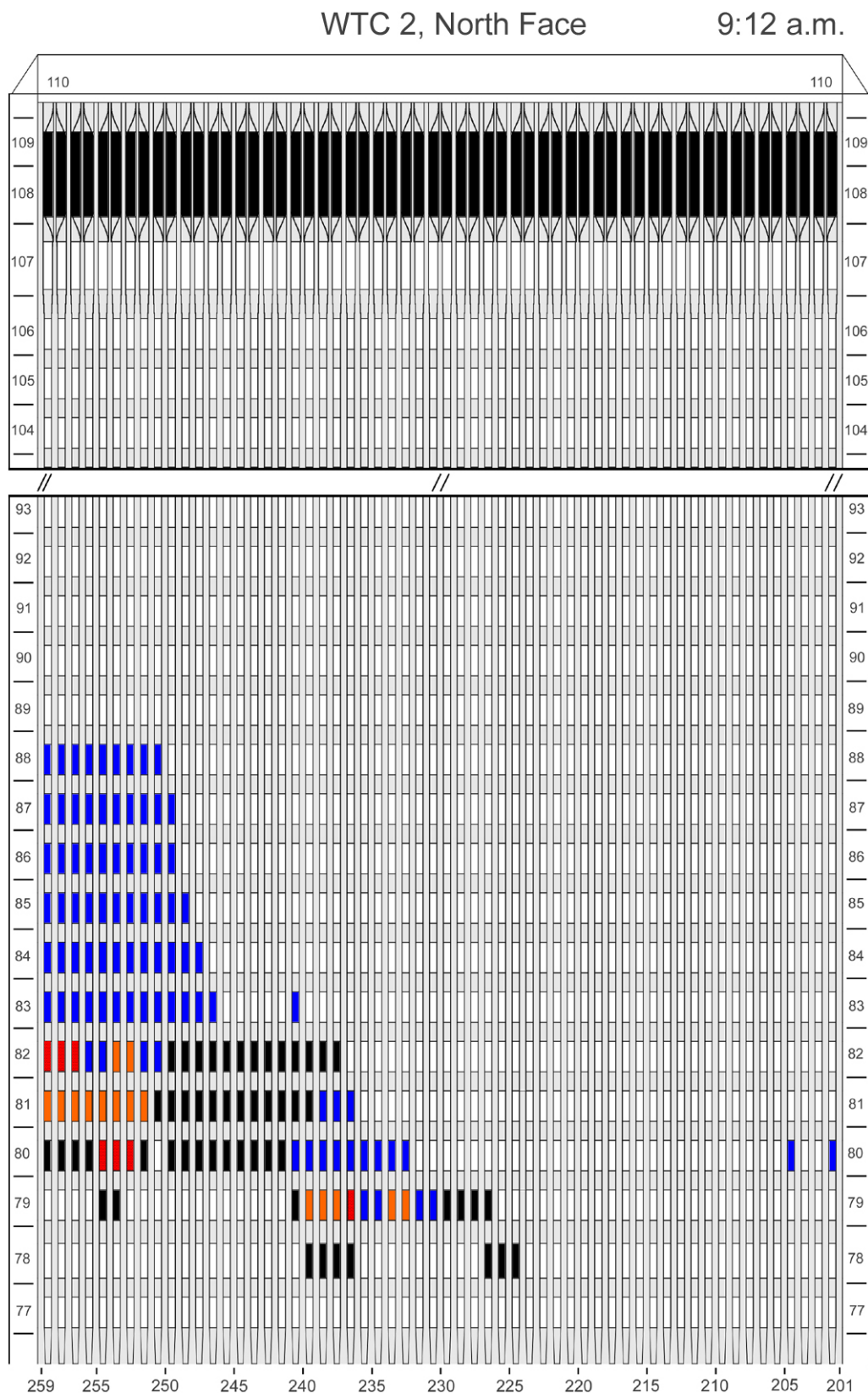


**Figure G-9. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:10 a.m. showing the condition of windows and locations of fires.**

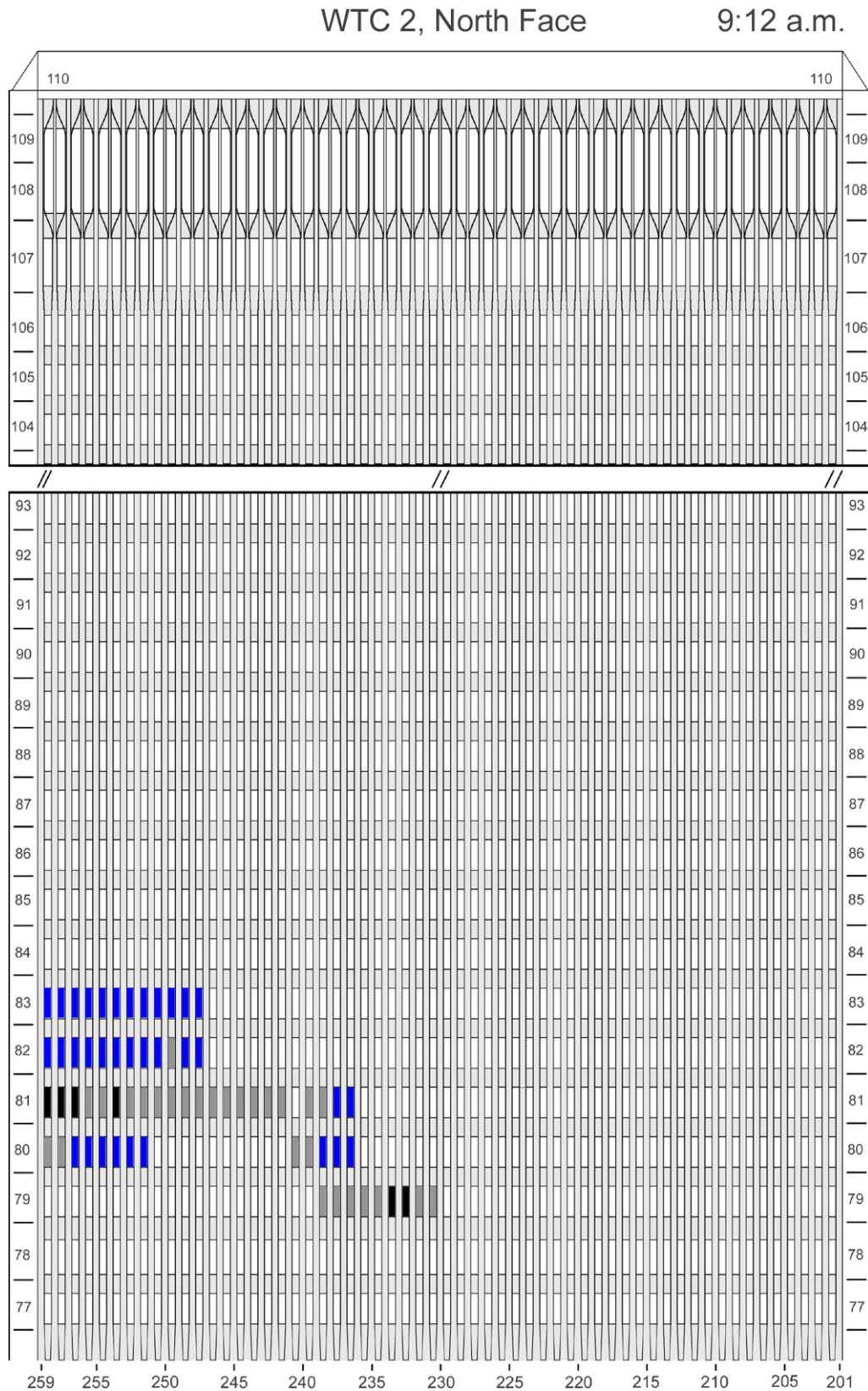




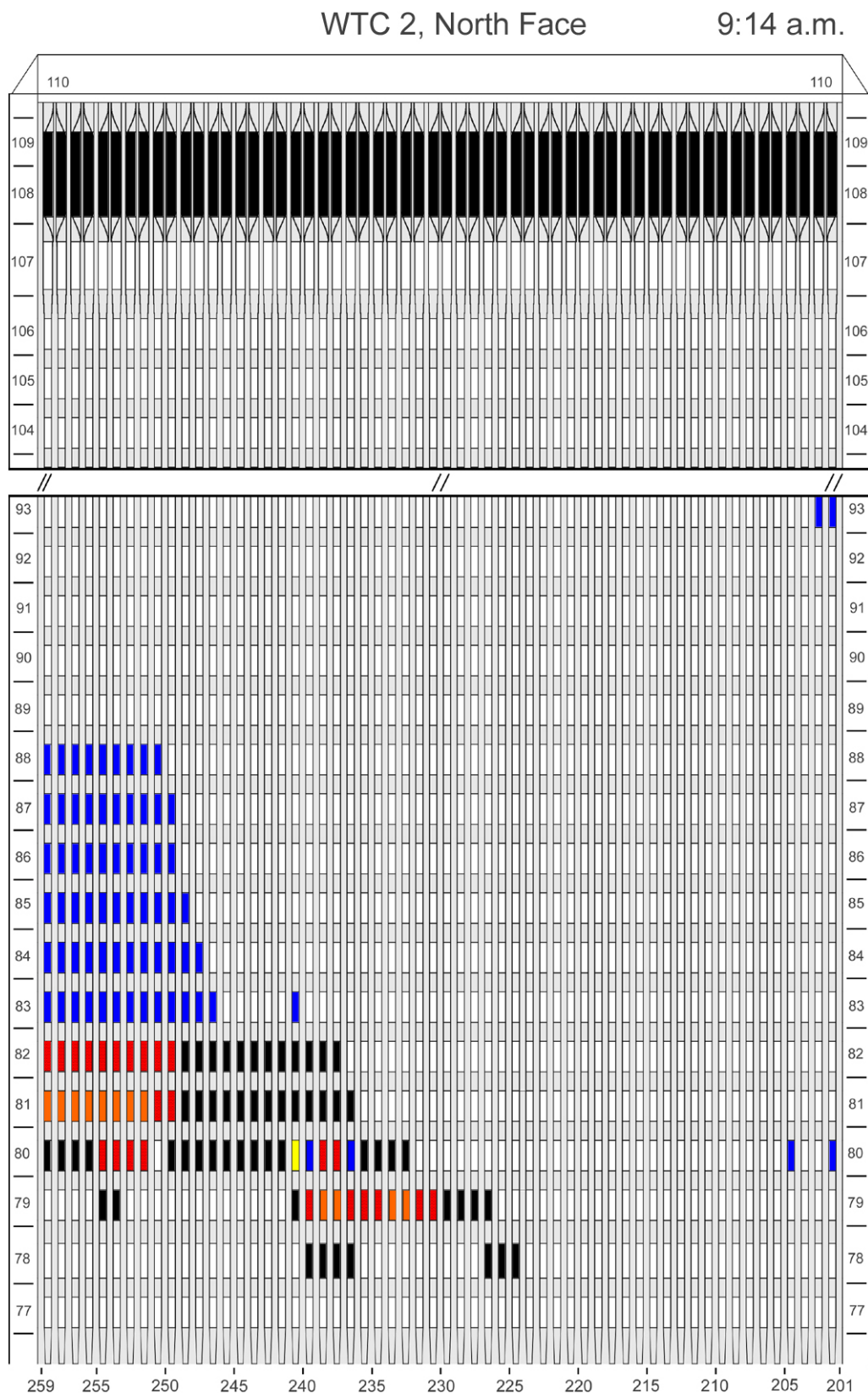
**Figure G-10. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:10 a.m. showing windows where smoke was observed and those hidden from view.**



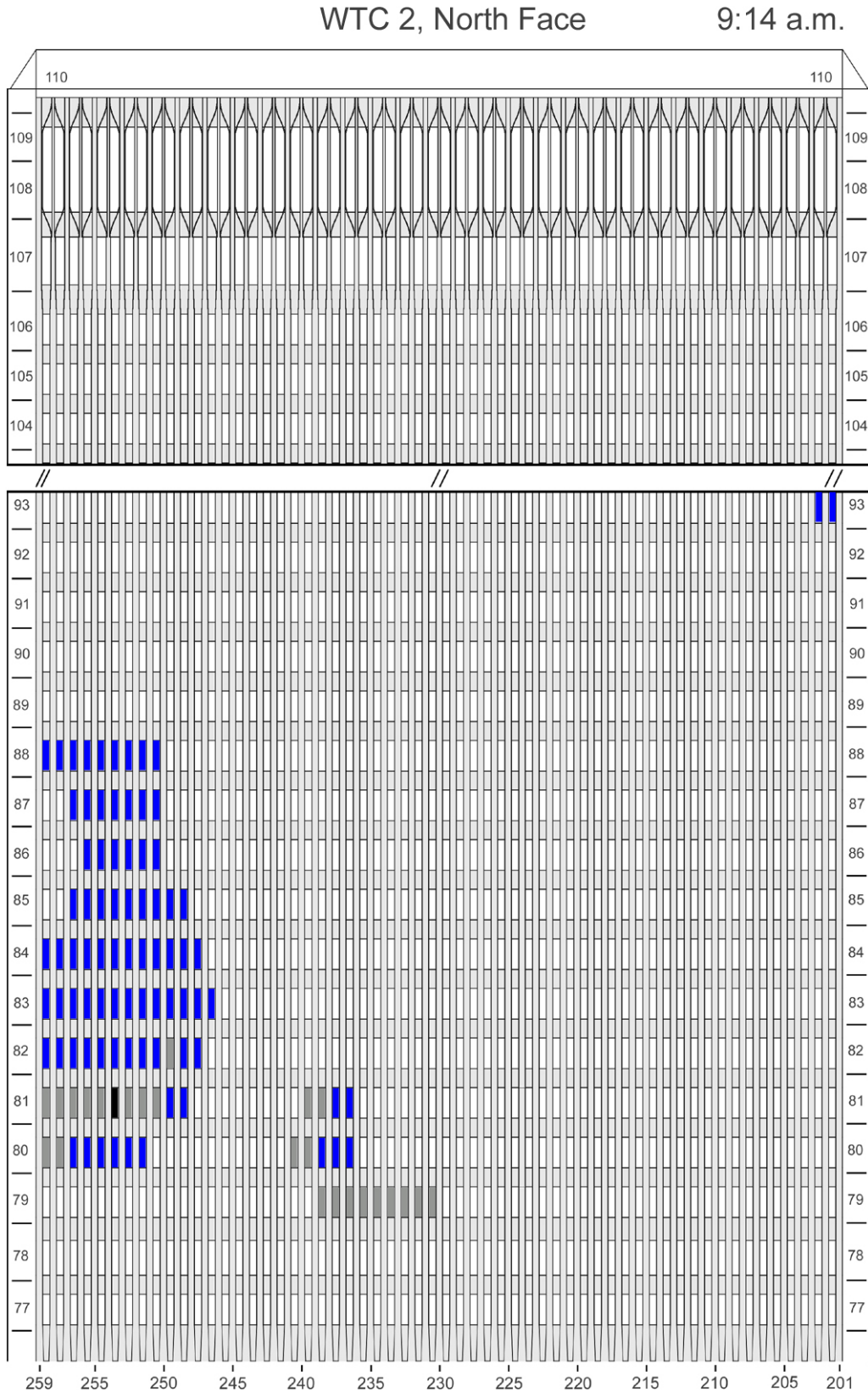
**Figure G-11. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:12 a.m. showing the condition of windows and locations of fires.**



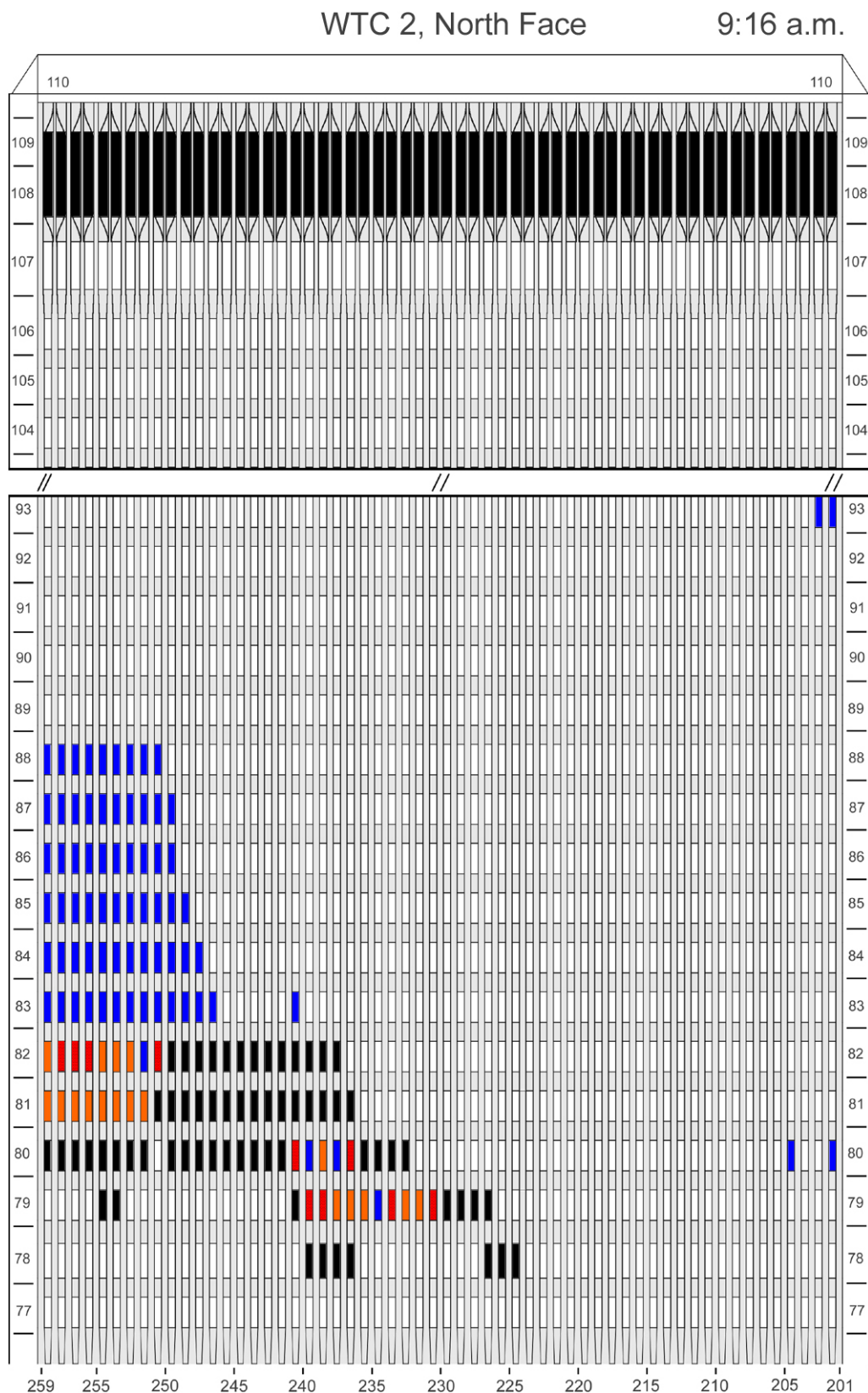
**Figure G-12. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:12 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-13. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:14 a.m. showing the condition of windows and locations of fires.**

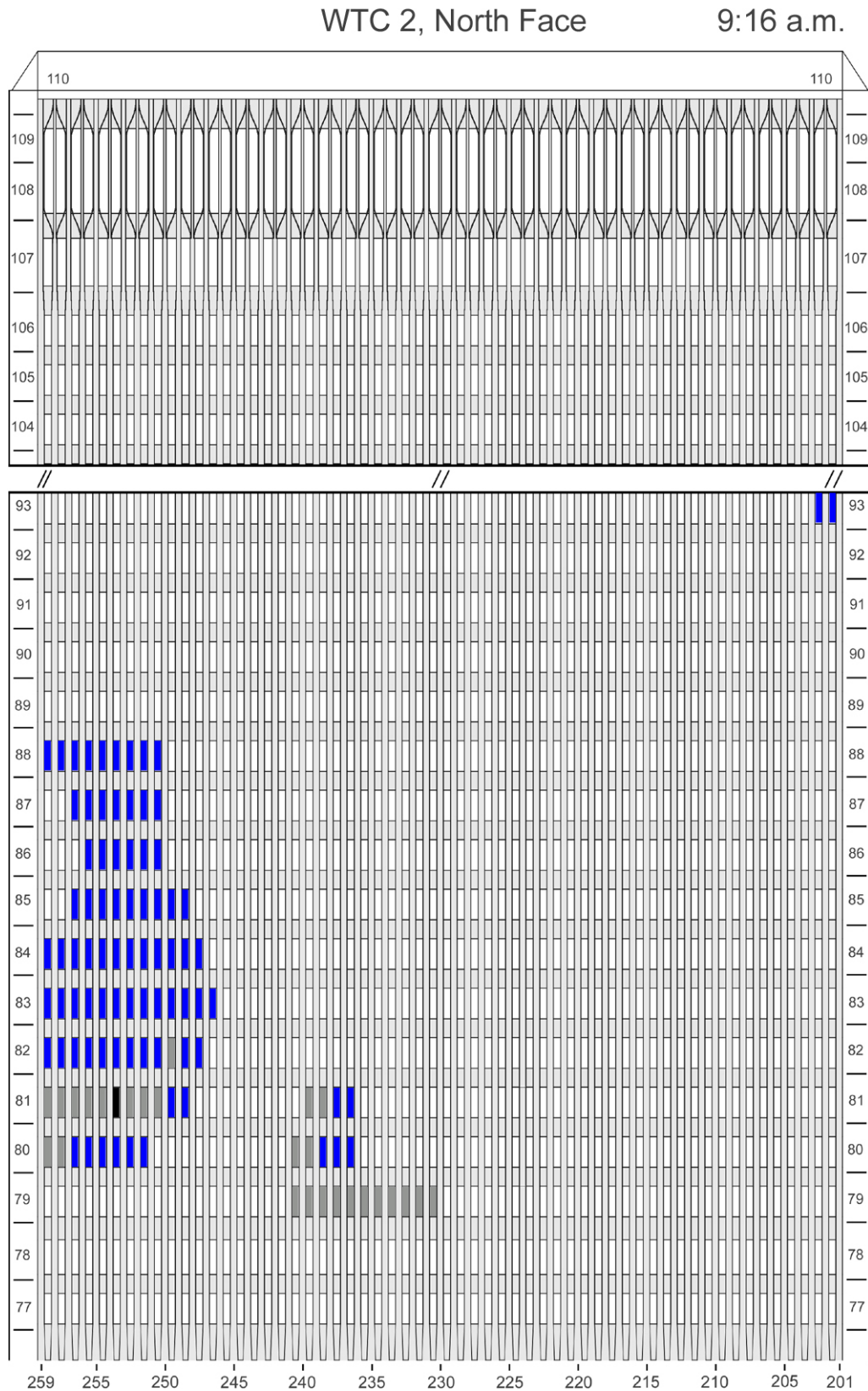


**Figure G-14. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:14 a.m. showing windows where smoke was observed and those hidden from view.**

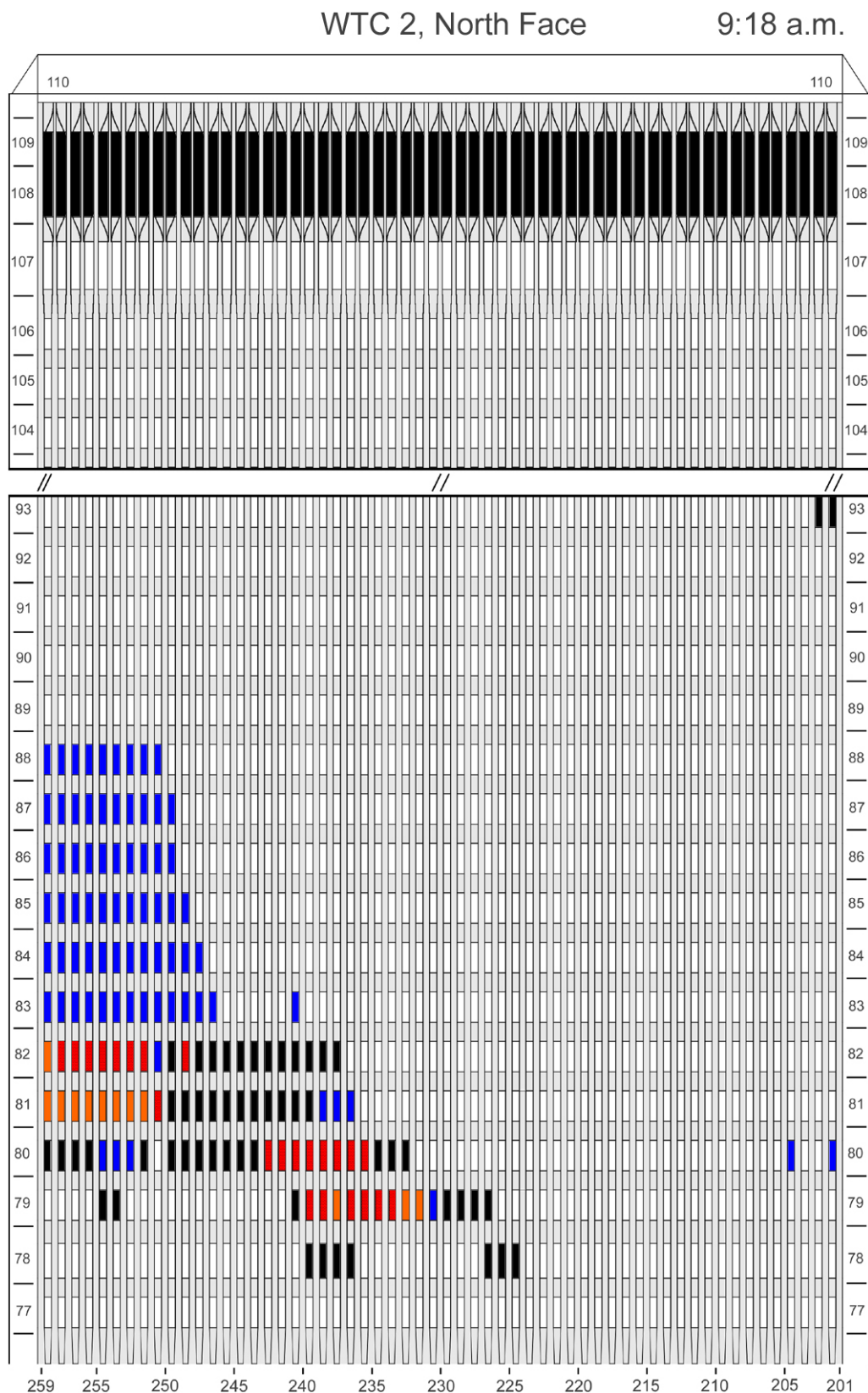


**Figure G-15. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:16 a.m. showing the condition of windows and locations of fires.**

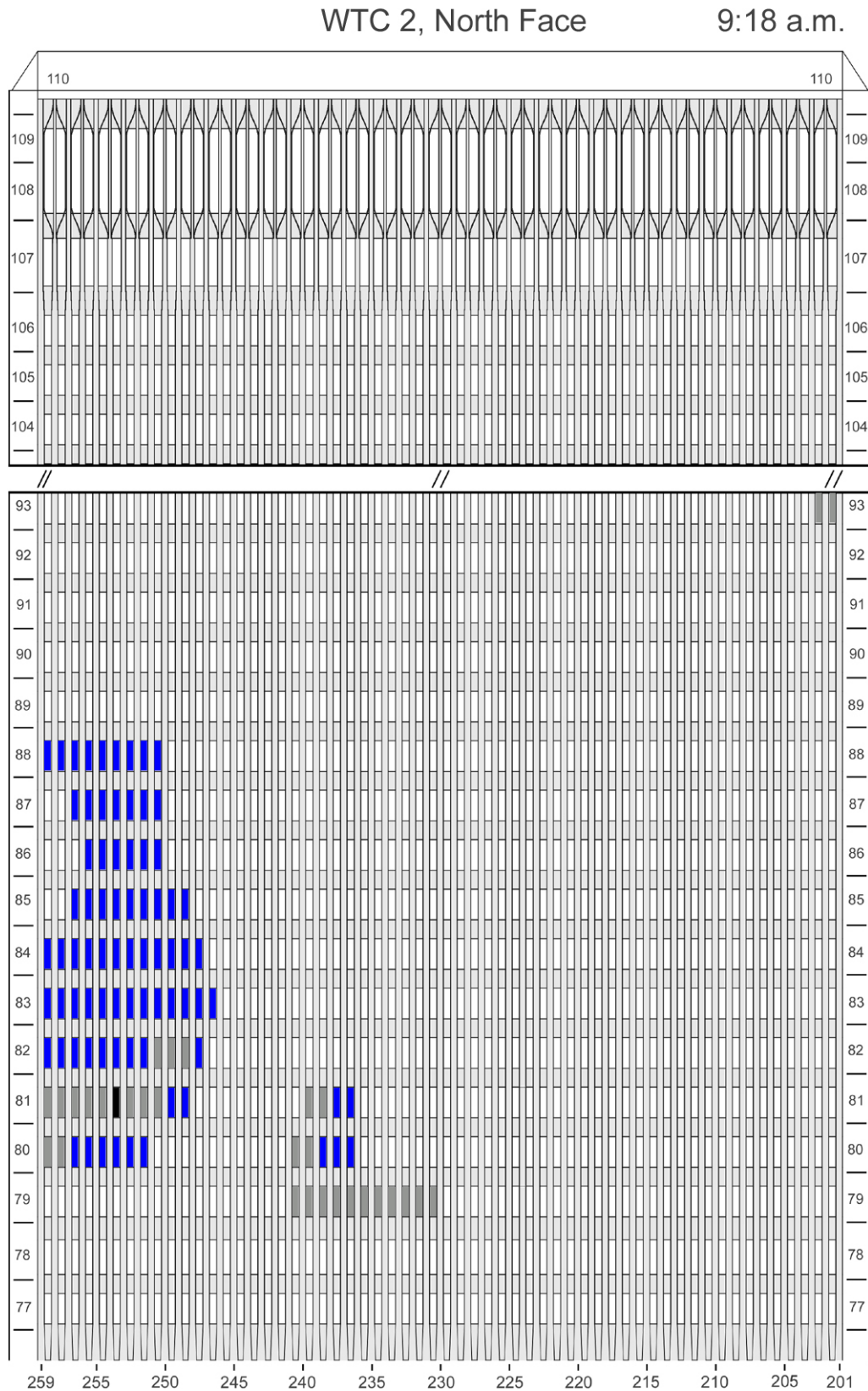




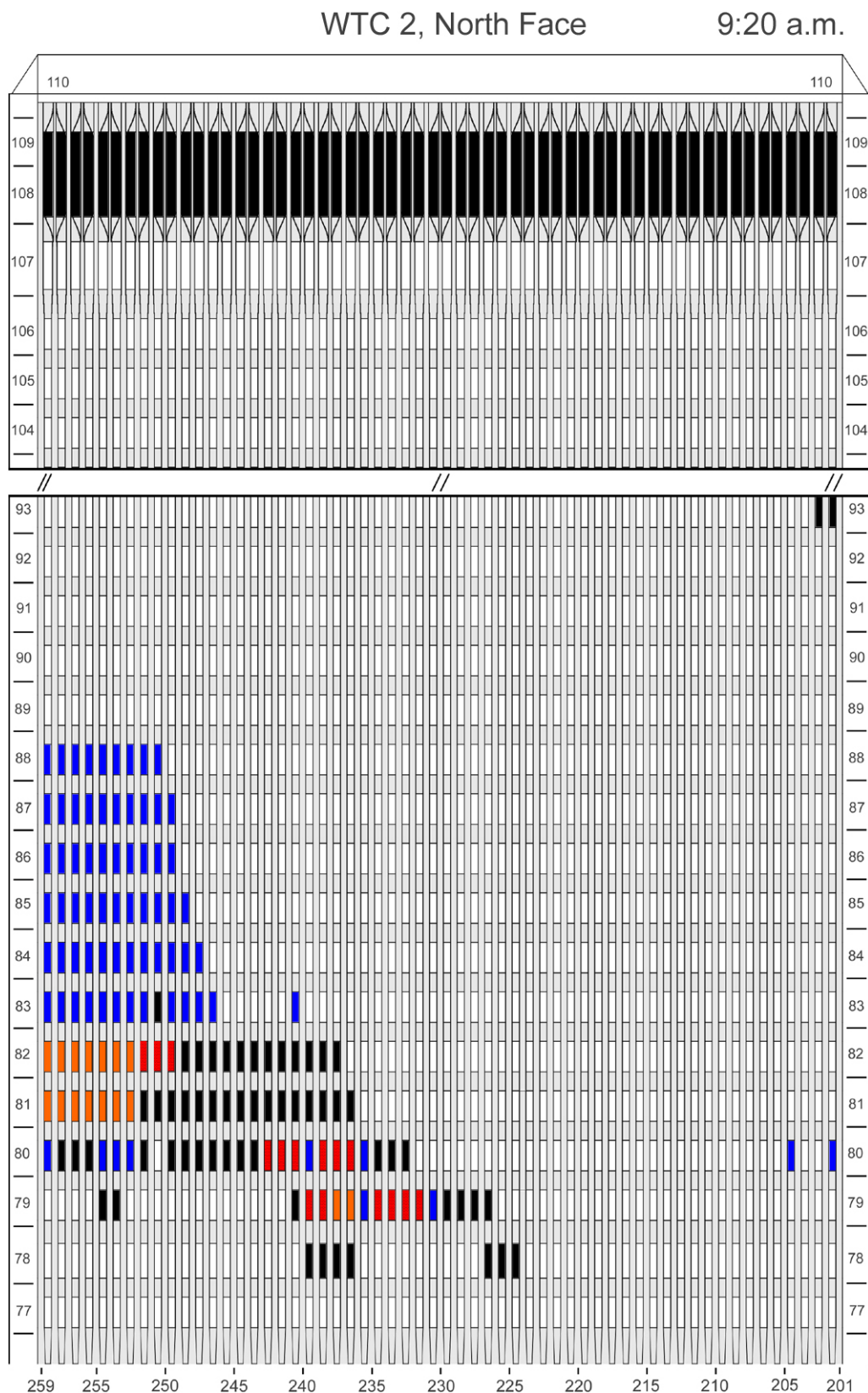
**Figure G-16. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:16 a.m. showing windows where smoke was observed and those hidden from view.**



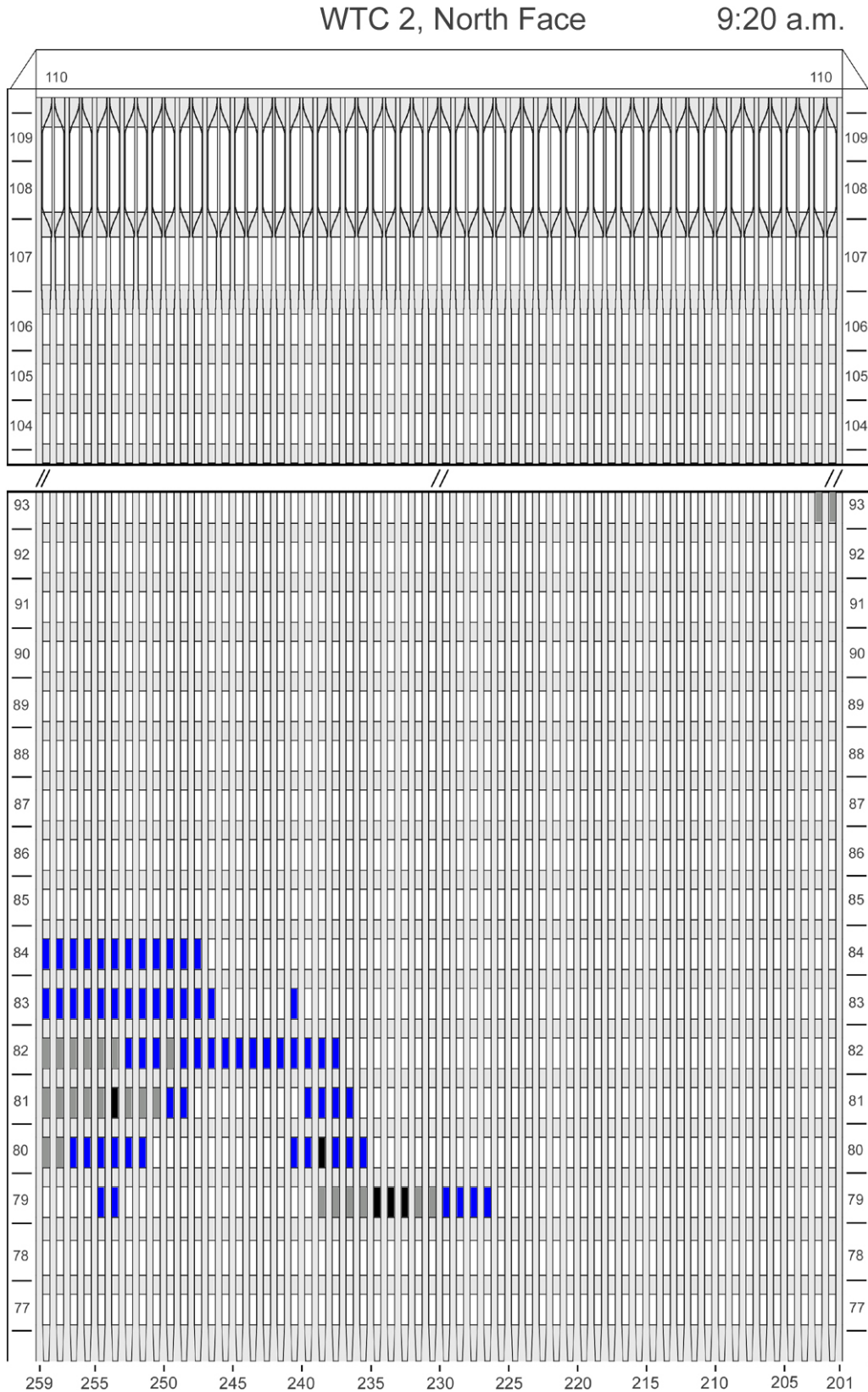
**Figure G-17. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:18 a.m. showing the condition of windows and locations of fires.**



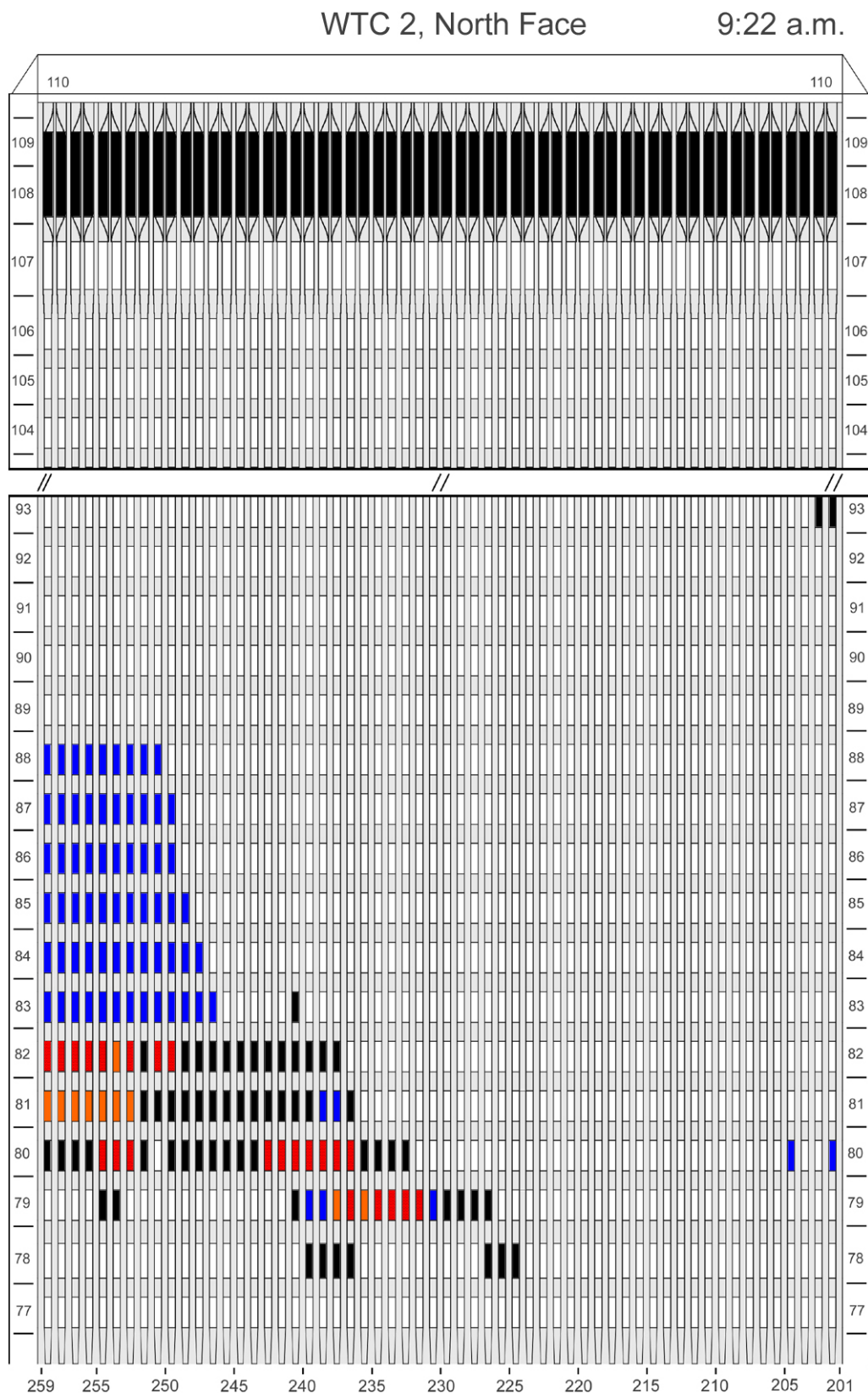
**Figure G-18. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:18 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-19. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:20 a.m. showing the condition of windows and locations of fires.**

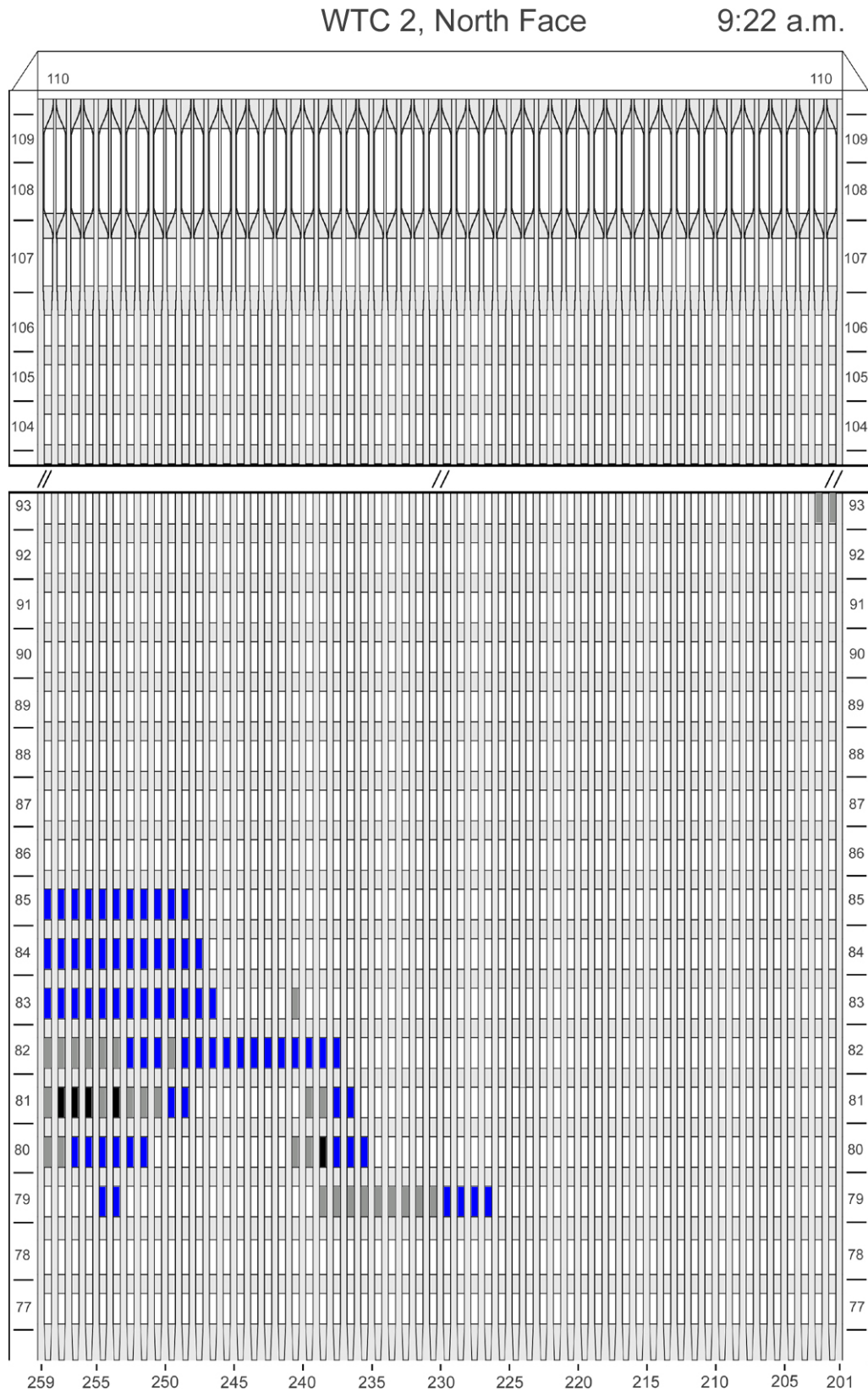


**Figure G-20. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:20 a.m. showing windows where smoke was observed and those hidden from view.**

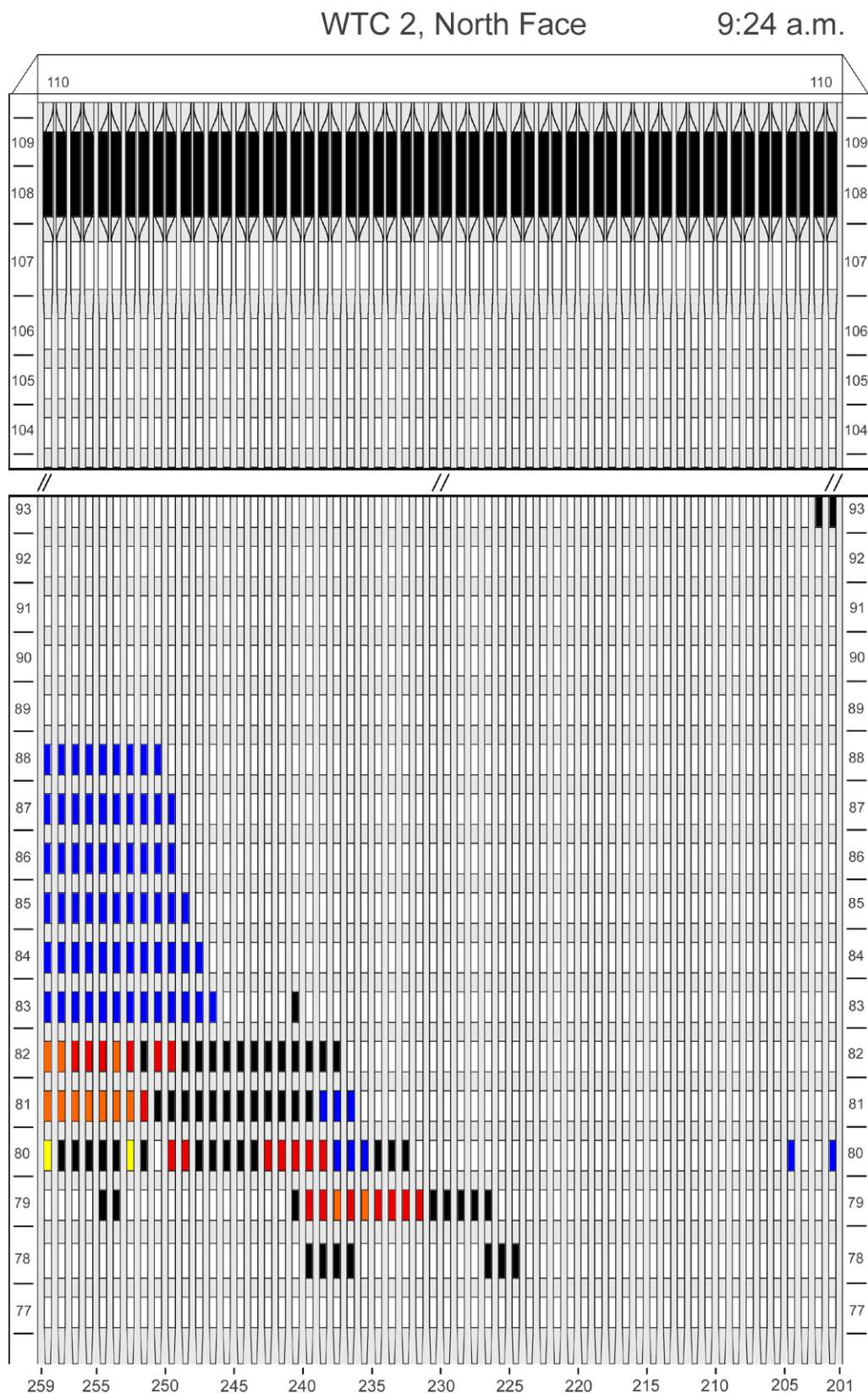


**Figure G-21. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:22 a.m. showing the condition of windows and locations of fires.**

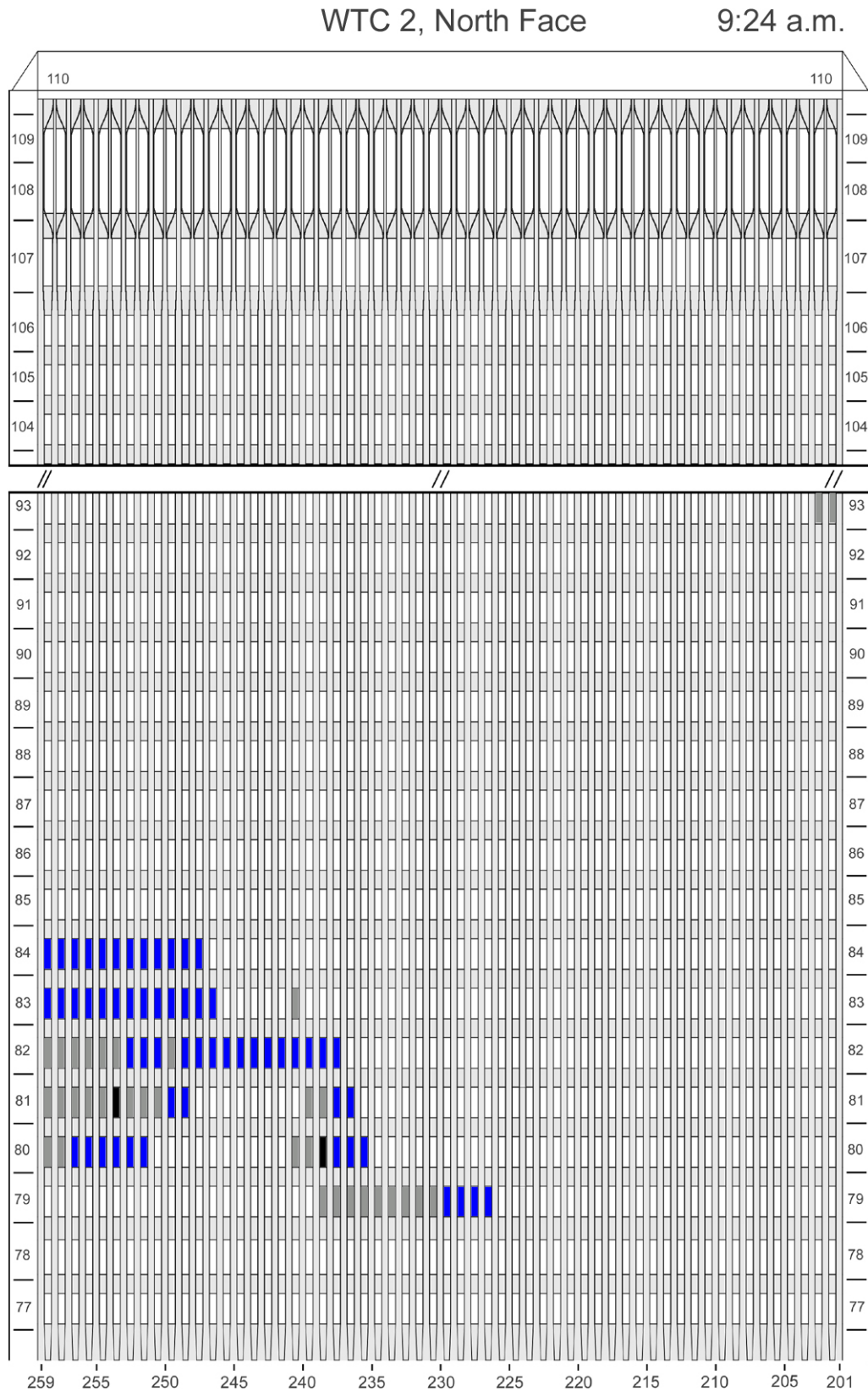




**Figure G-22. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:22 a.m. showing windows where smoke was observed and those hidden from view.**

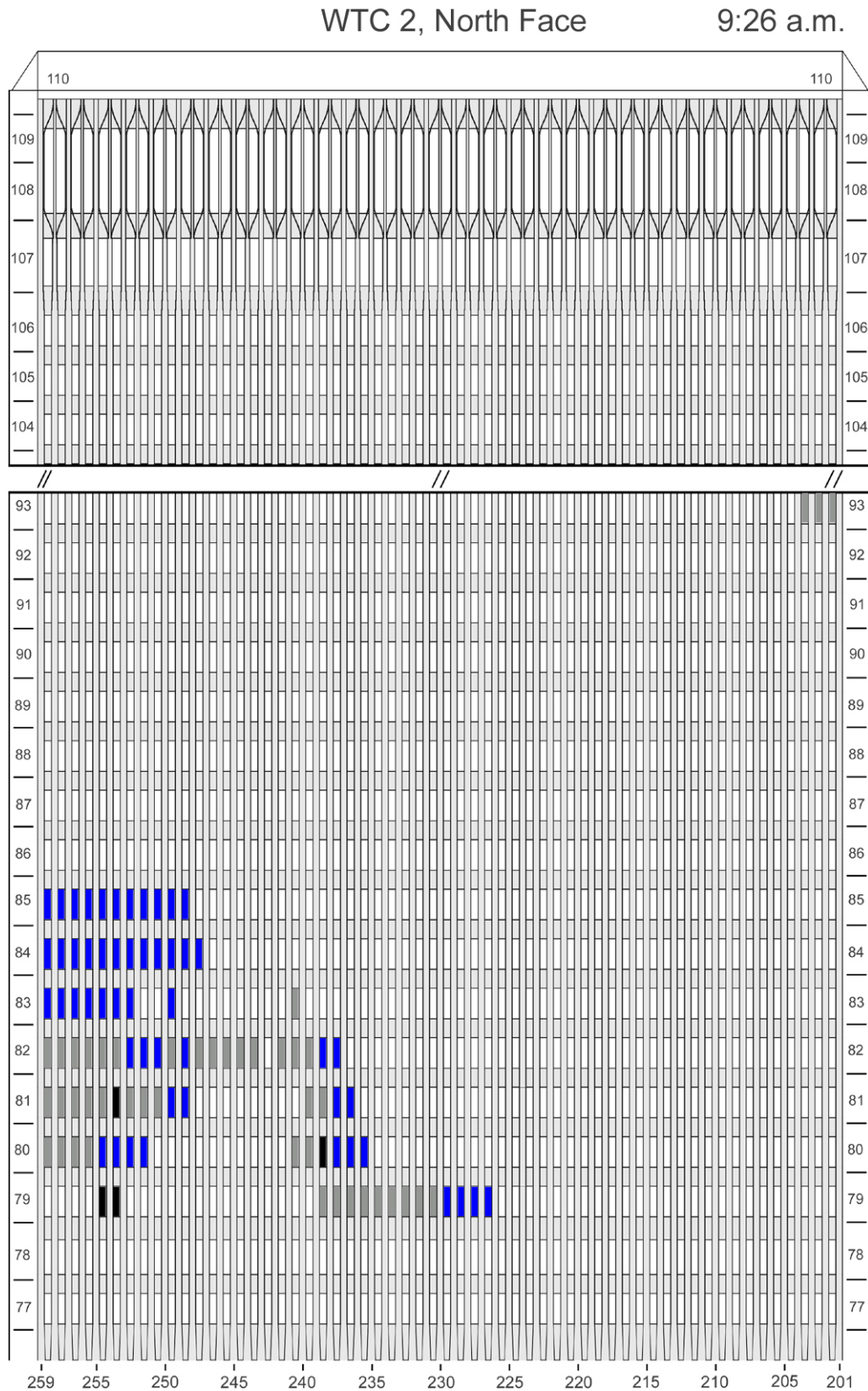


**Figure G-23. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:24 a.m. showing the condition of windows and locations of fires.**

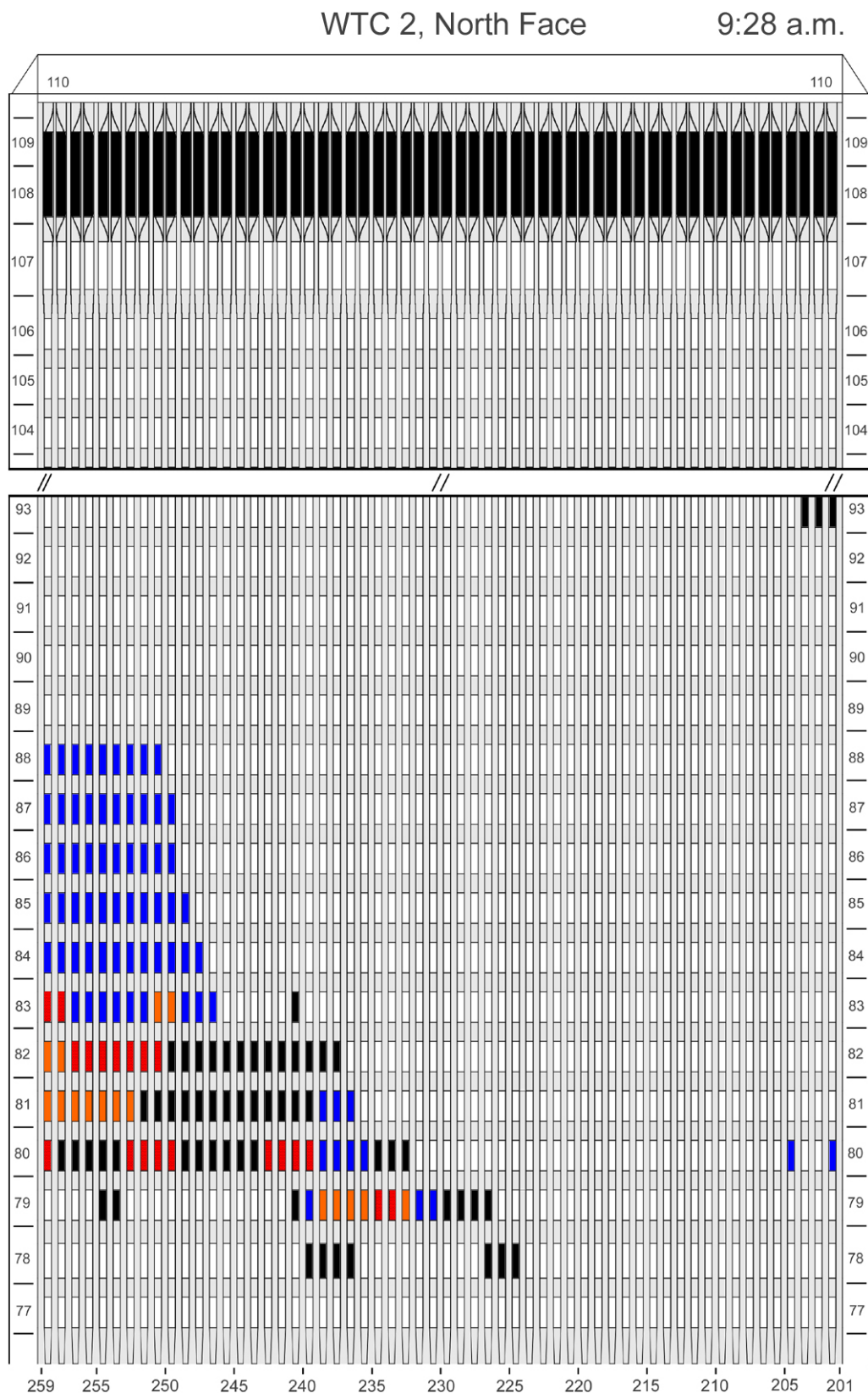


**Figure G-24. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:24 a.m. showing windows where smoke was observed and those hidden from view.**



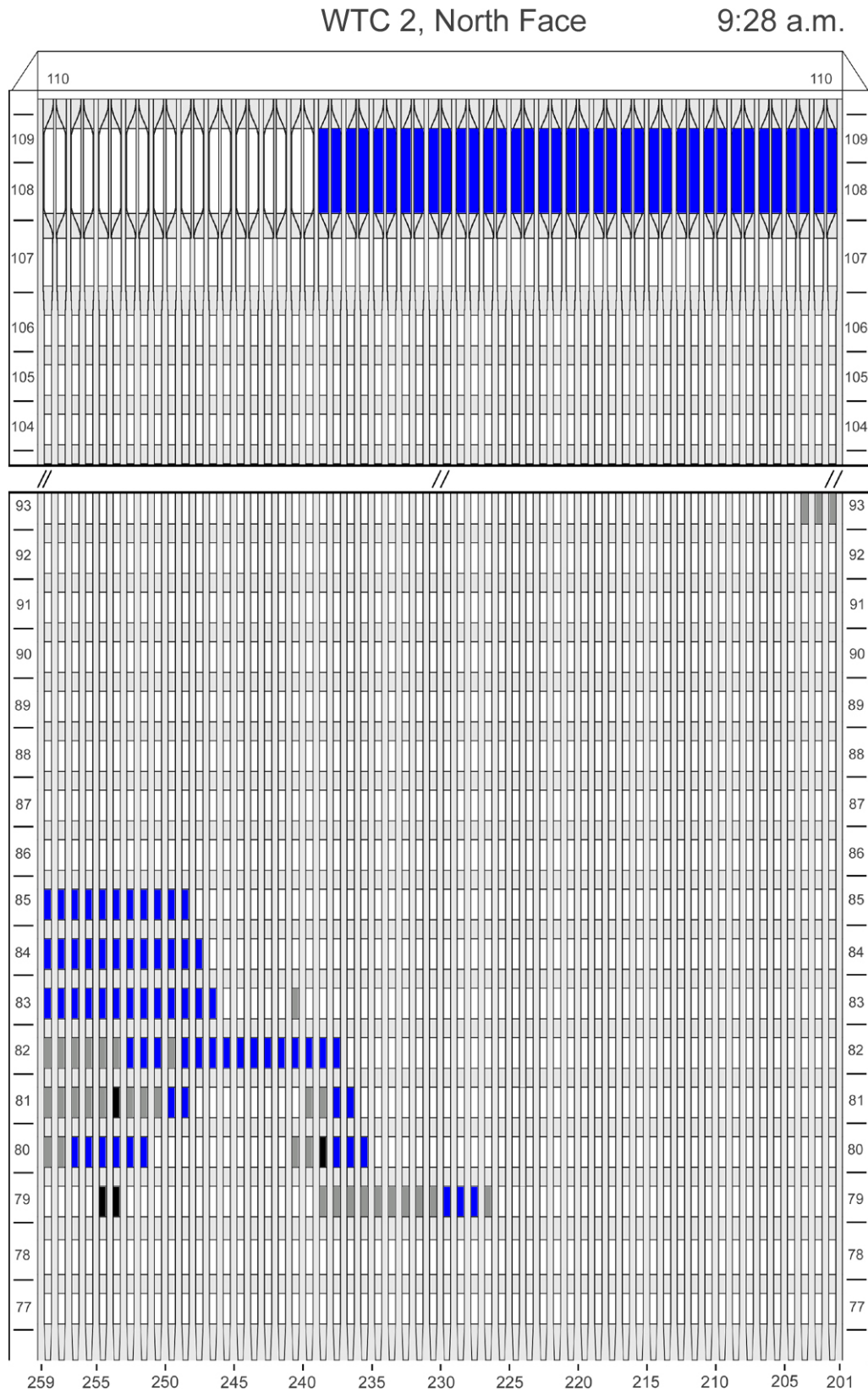


**Figure G-26. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:26 a.m. showing windows where smoke was observed and those hidden from view.**

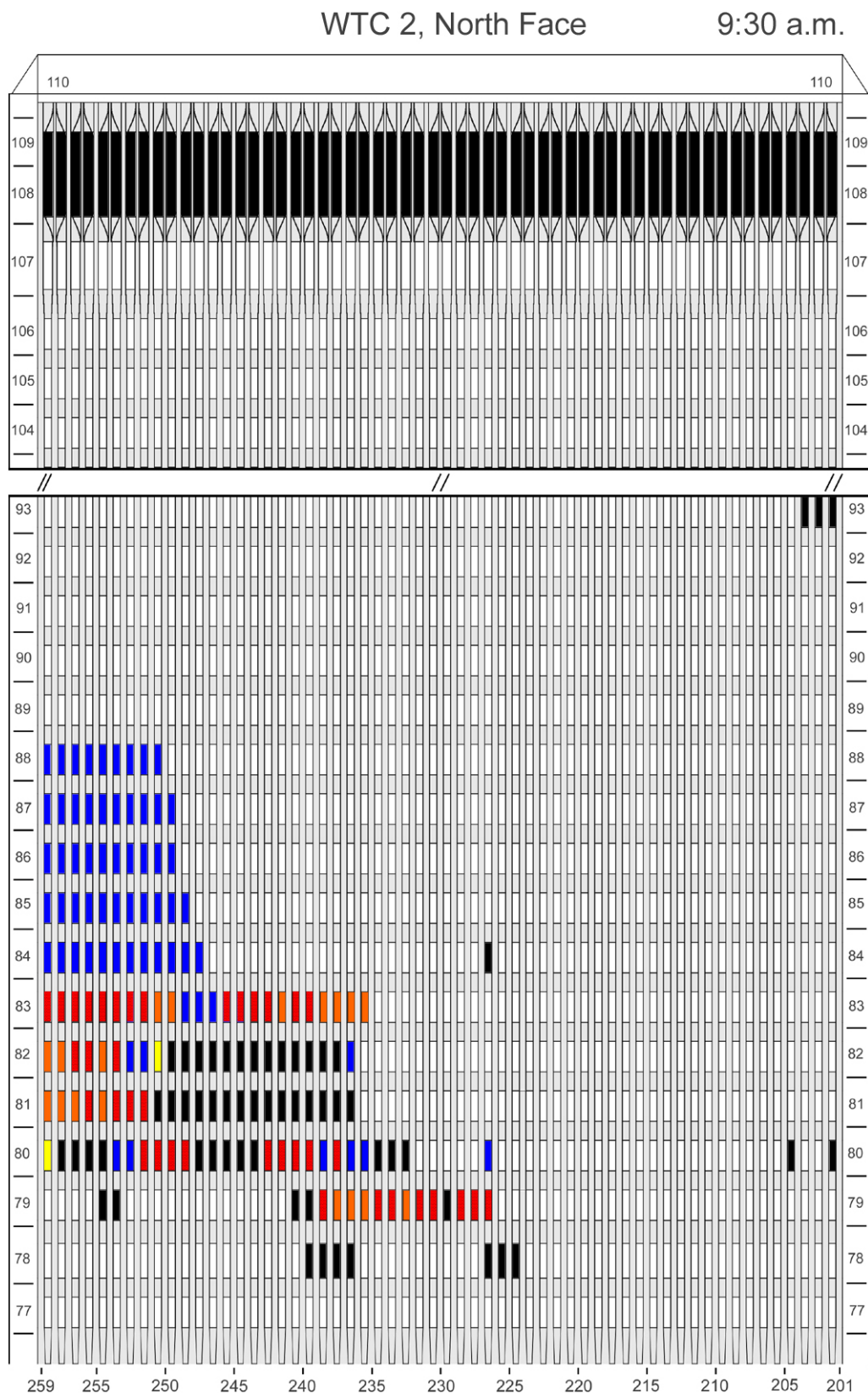


**Figure G-27. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:28 a.m. showing the condition of windows and locations of fires.**

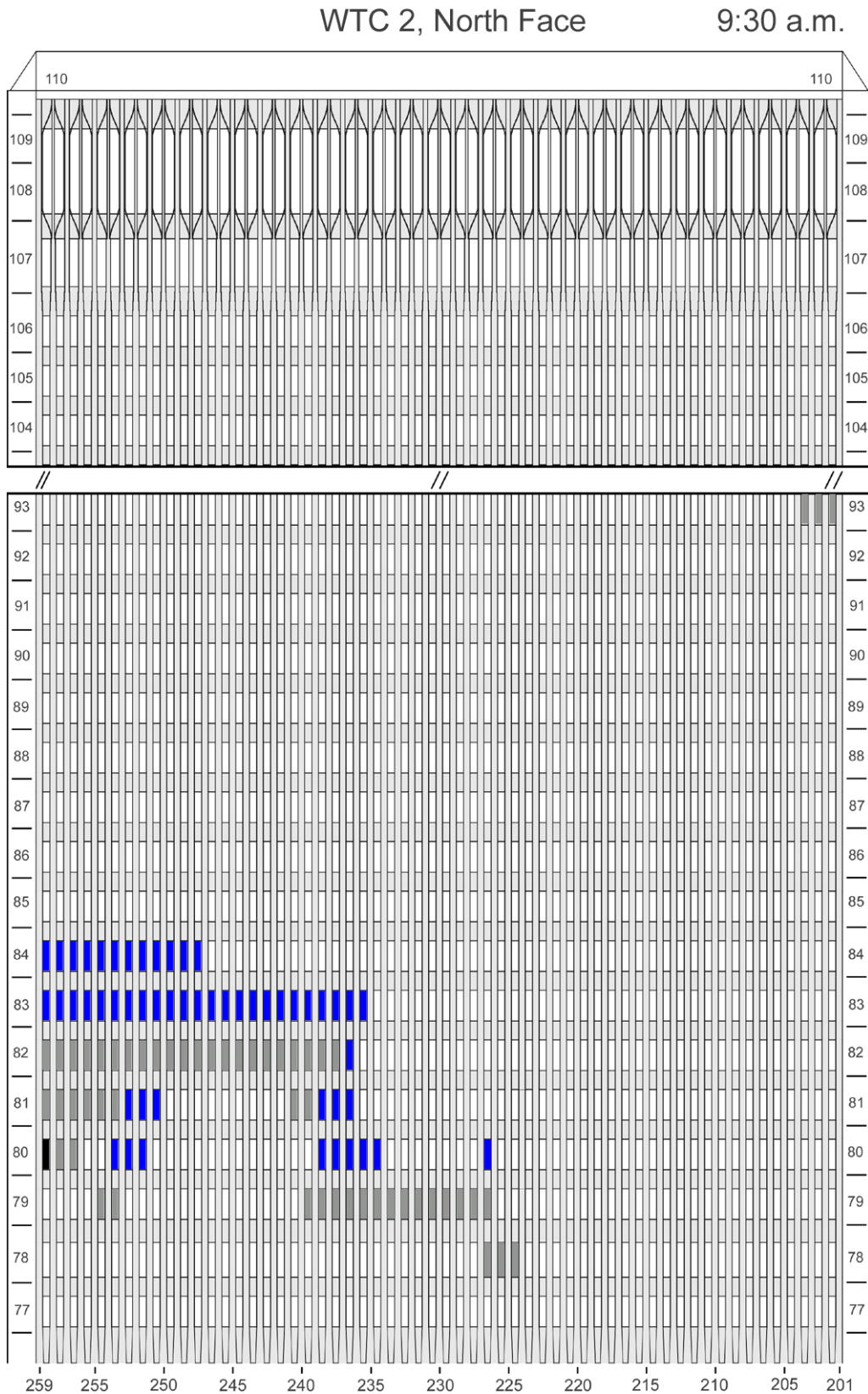




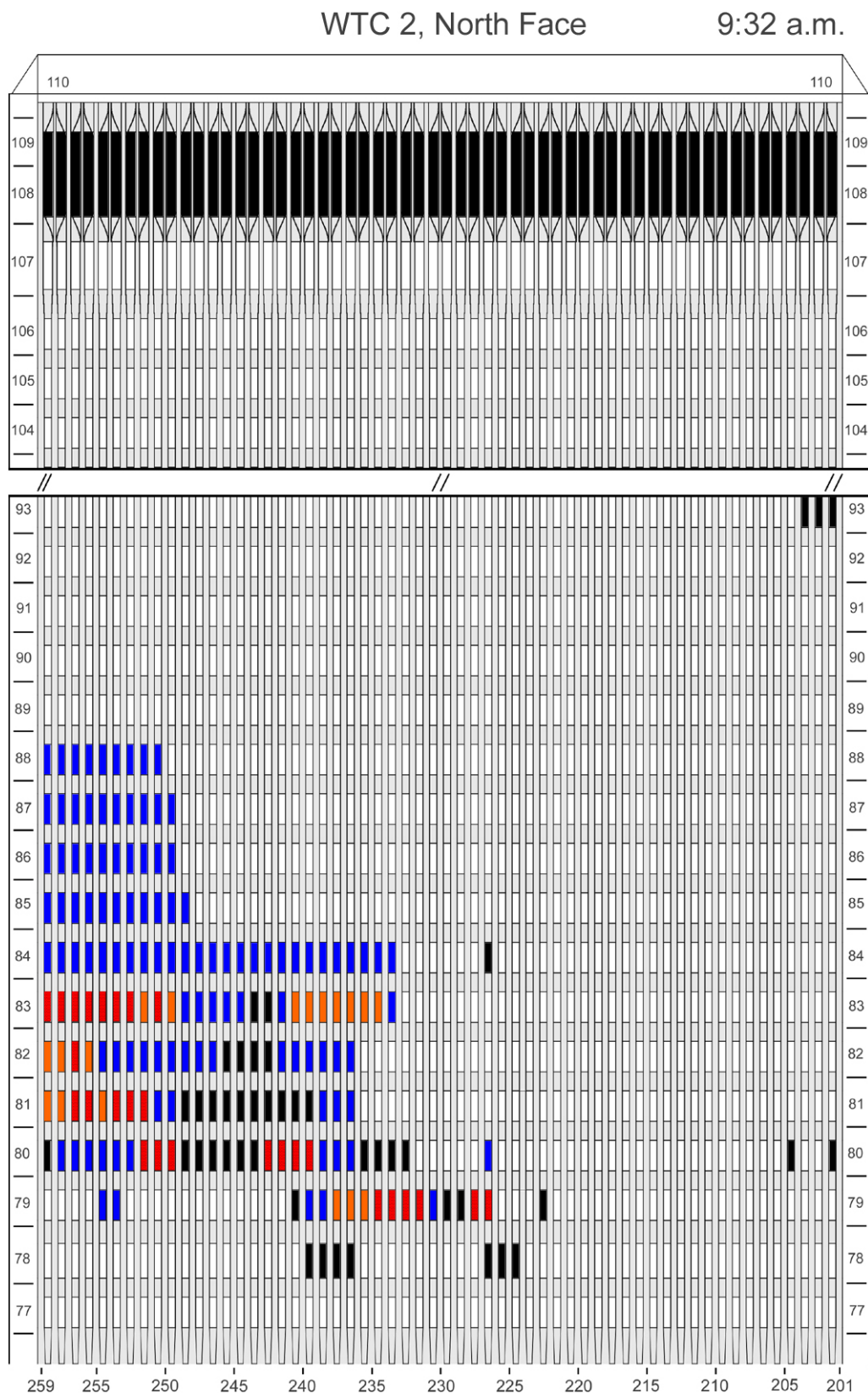
**Figure G-28. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:28 a.m. showing windows where smoke was observed and those hidden from view.**



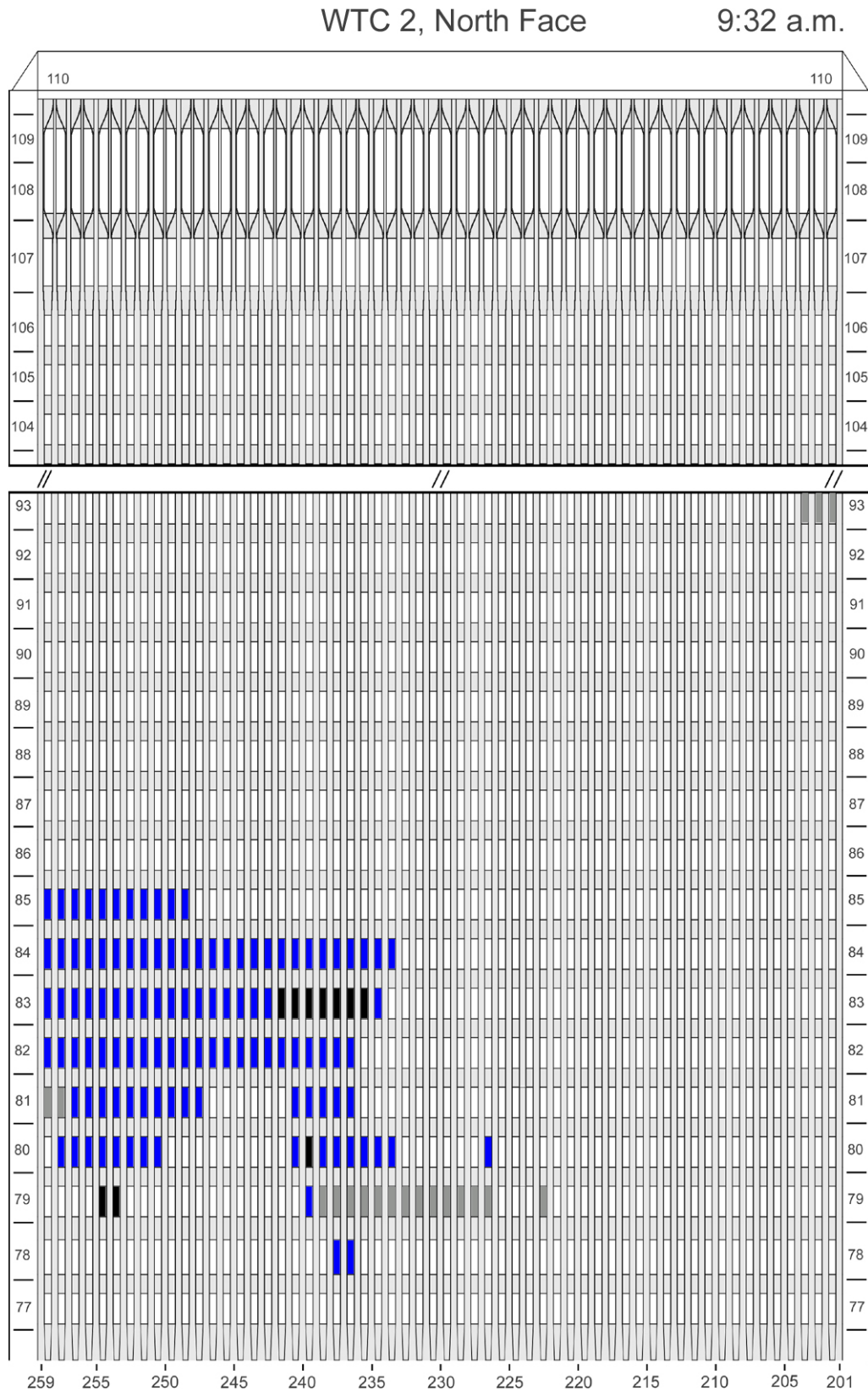
**Figure G-29. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:30 a.m. showing the condition of windows and locations of fires.**



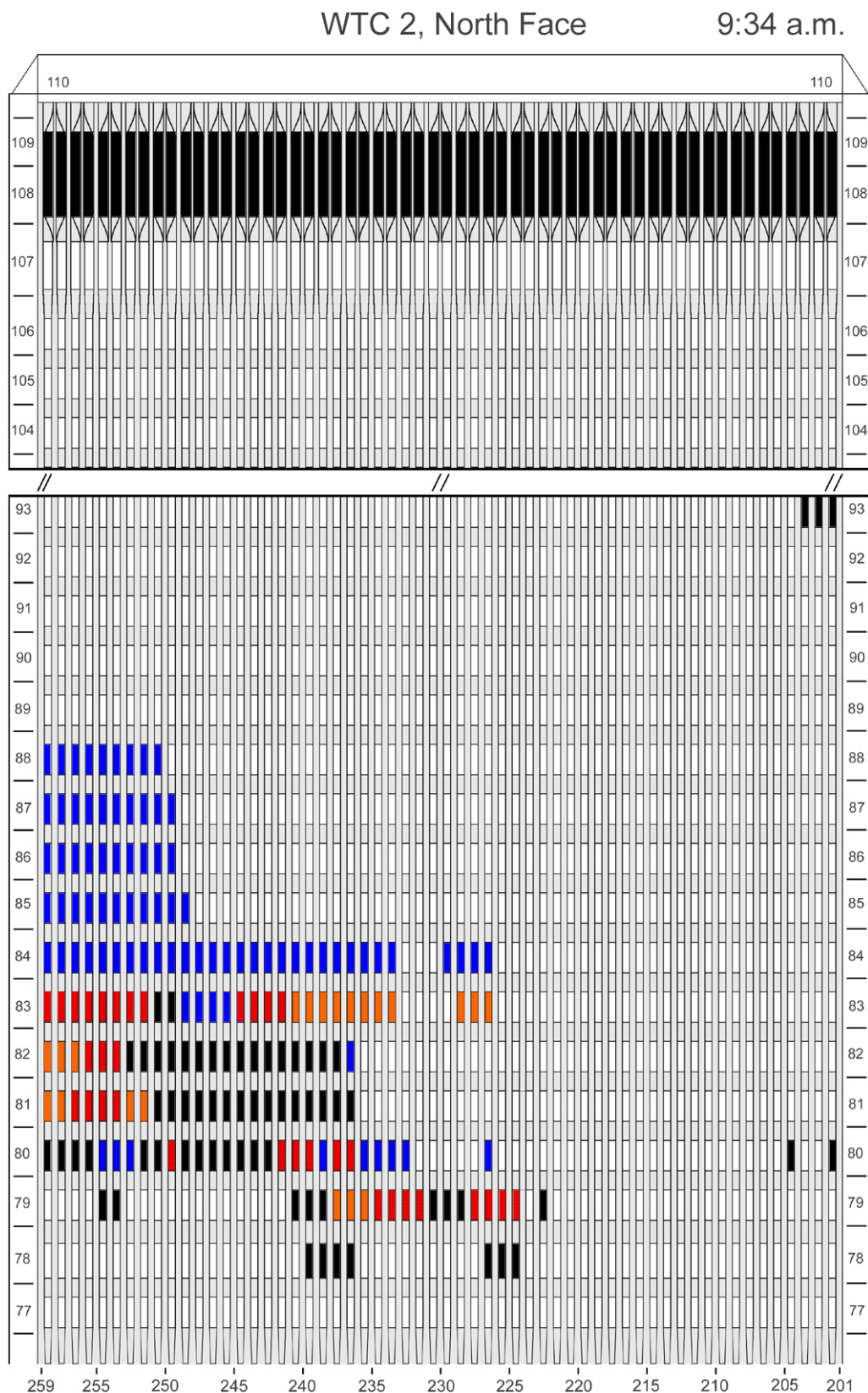
**Figure G-30. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:30 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-31. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:32 a.m. showing the condition of windows and locations of fires.**

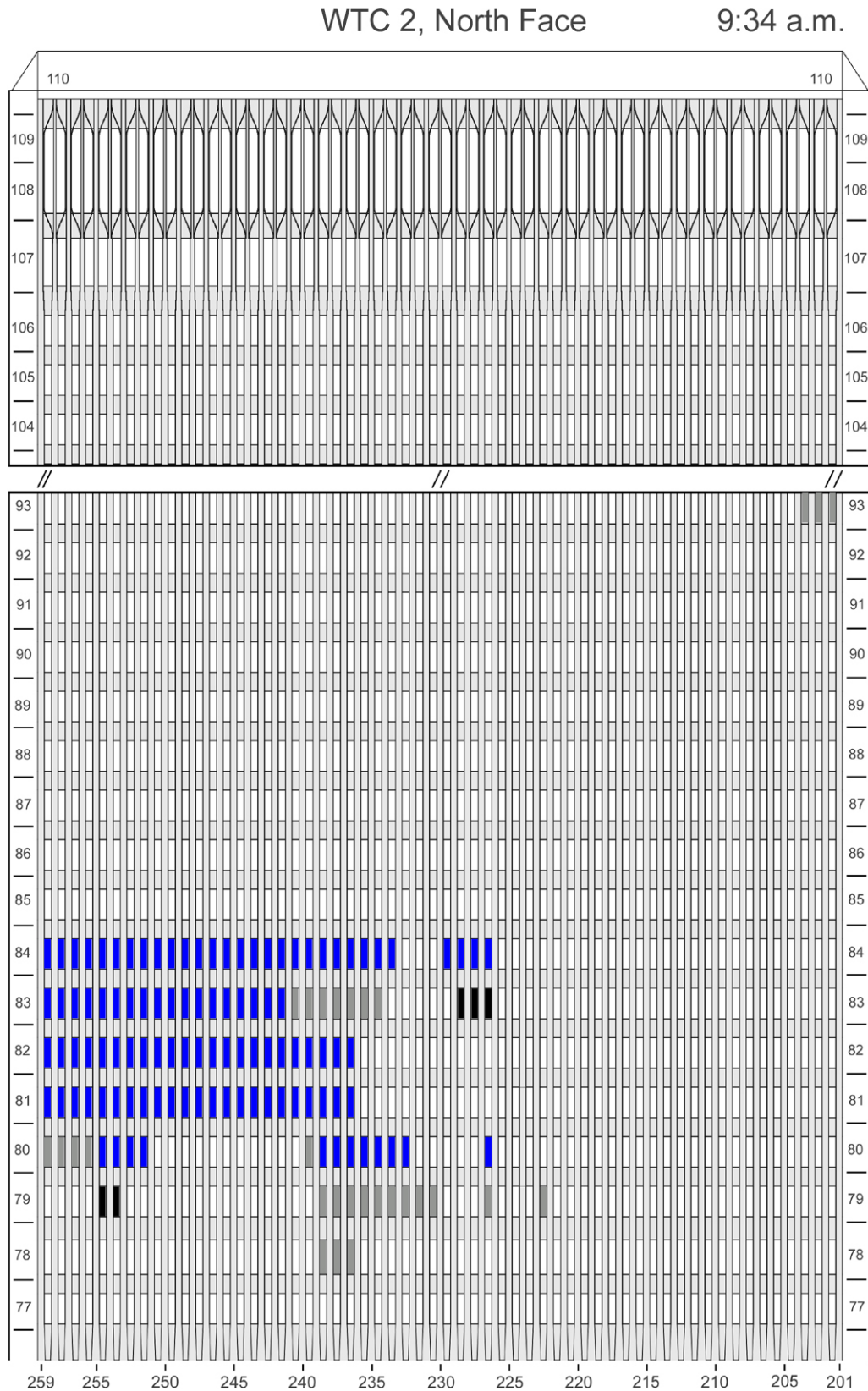


**Figure G-32. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:32 a.m. showing windows where smoke was observed and those hidden from view.**

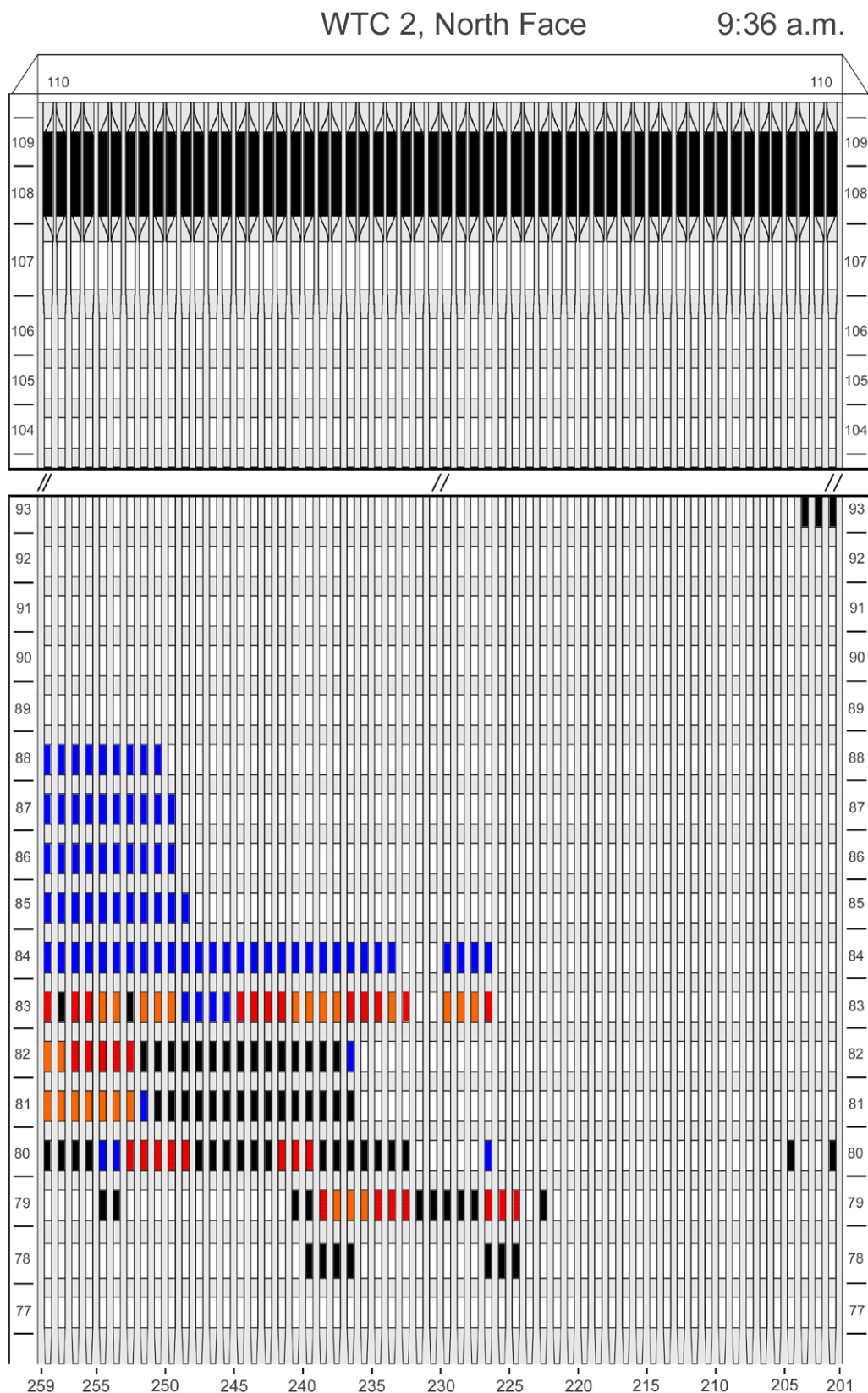


**Figure G-33. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:34 a.m. showing the condition of windows and locations of fires.**

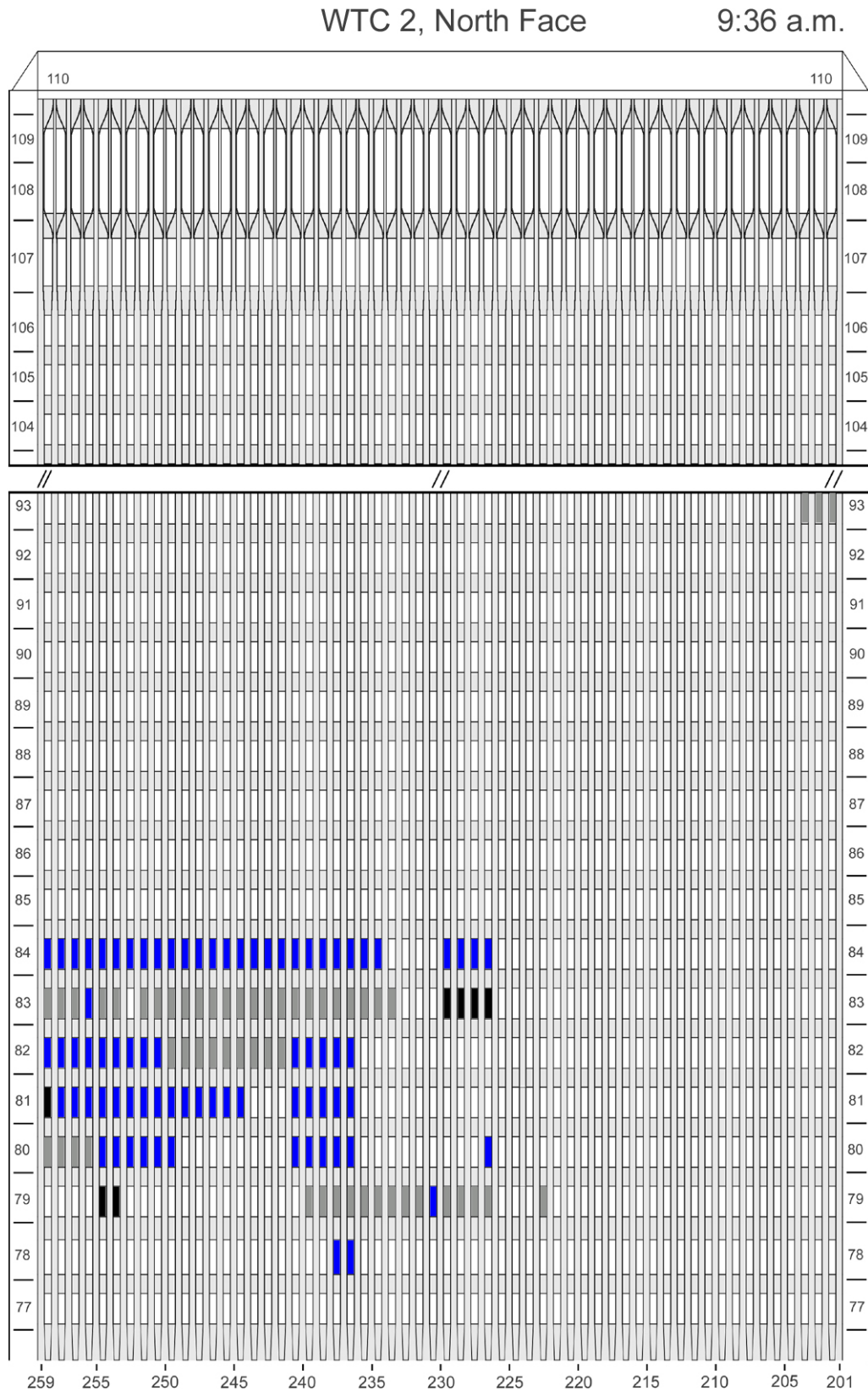




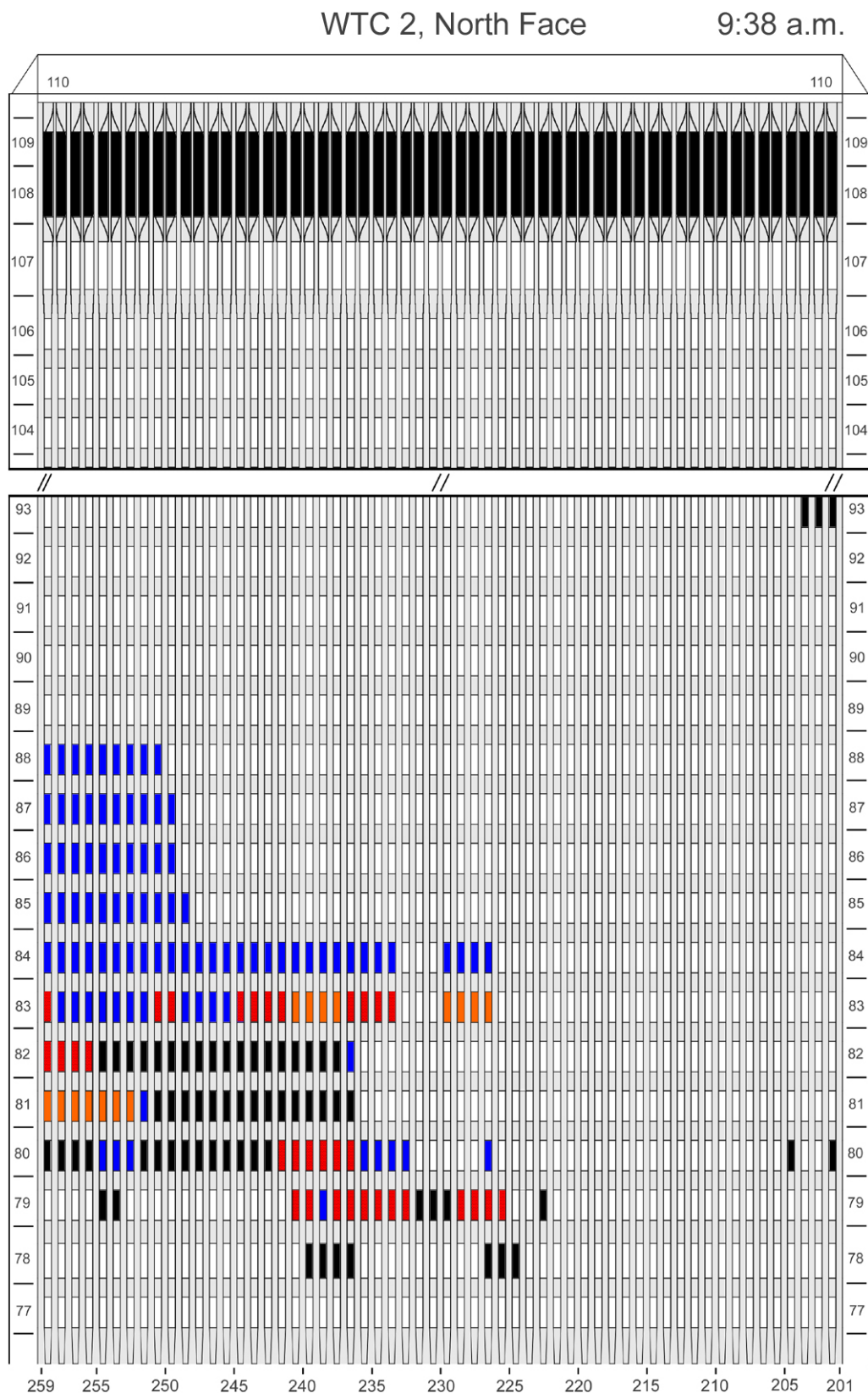
**Figure G-34. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:34 a.m. showing windows where smoke was observed and those hidden from view.**



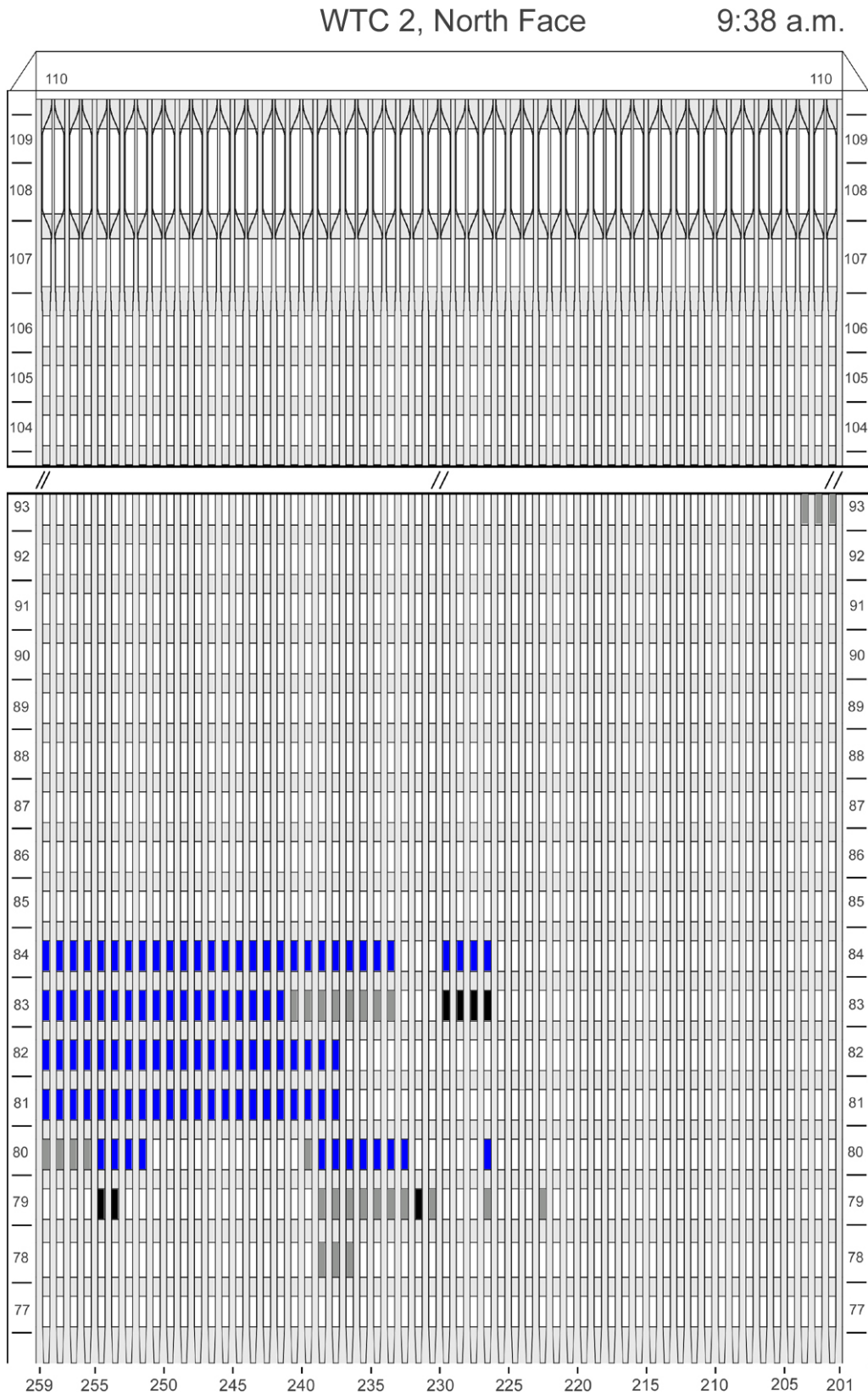
**Figure G-35. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:36 a.m. showing the condition of windows and locations of fires.**



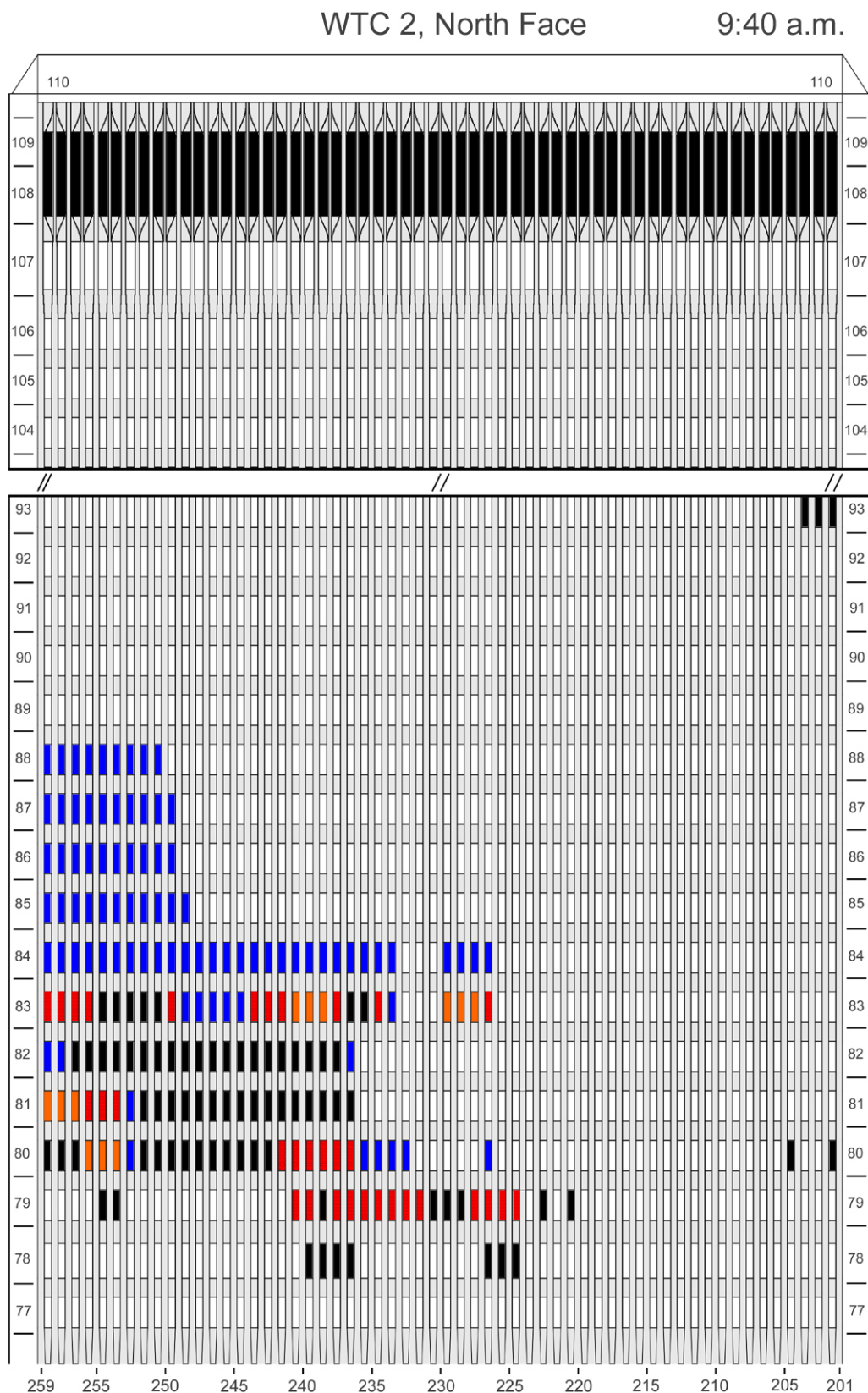
**Figure G-36. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:36 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-37. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:38 a.m. showing the condition of windows and locations of fires.**

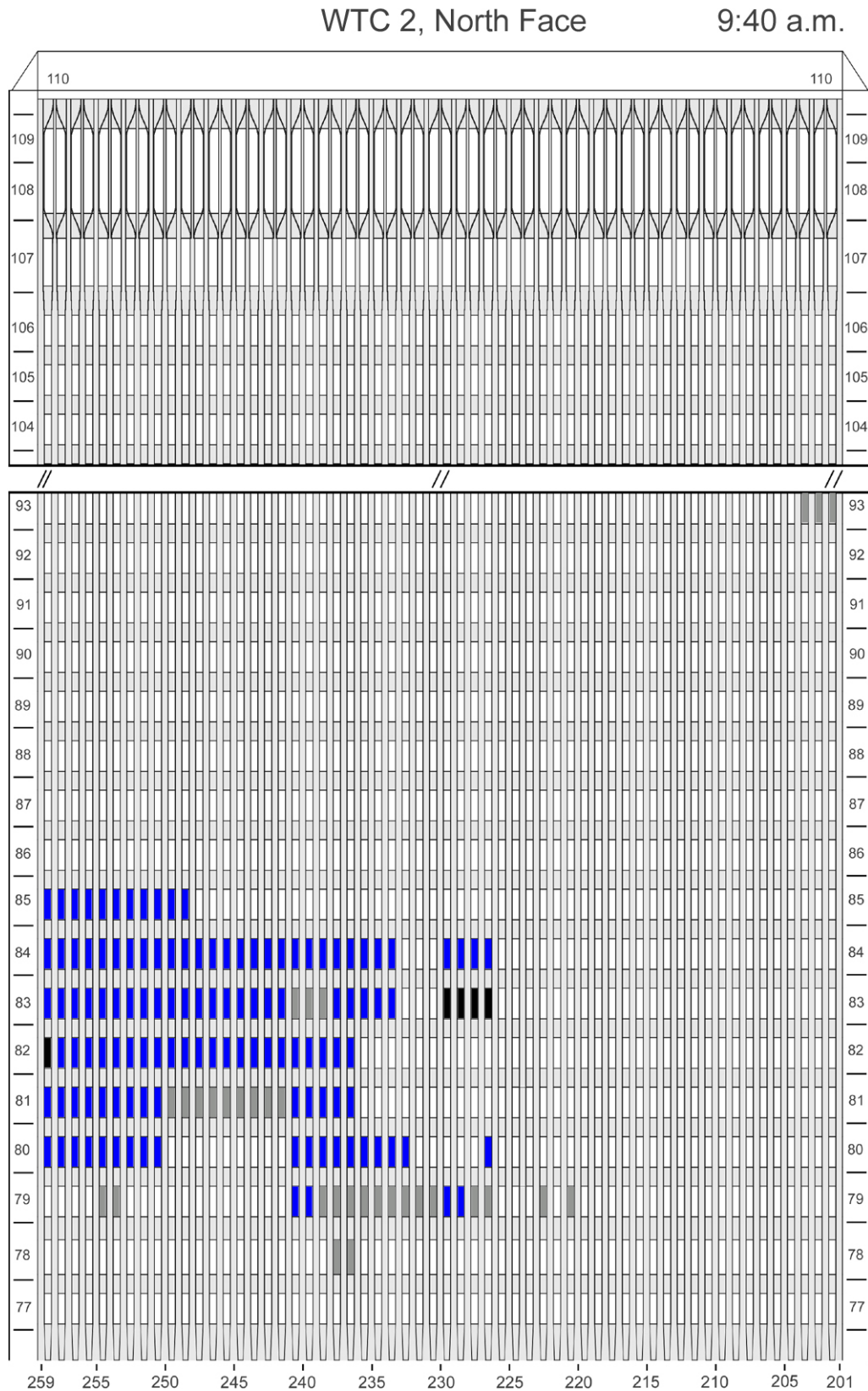


**Figure G-38. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:38 a.m. showing windows where smoke was observed and those hidden from view.**

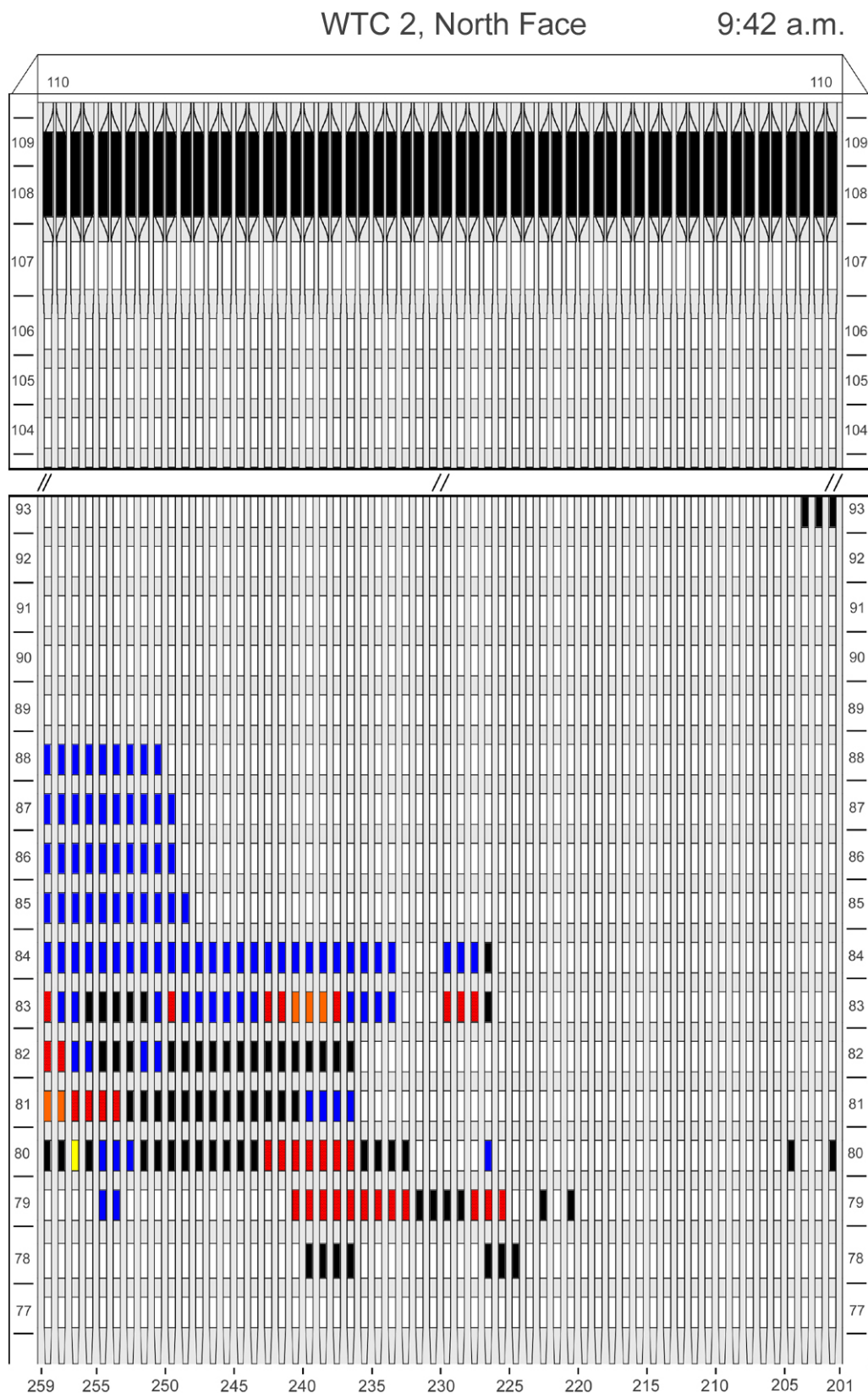


**Figure G-39. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:40 a.m. showing the condition of windows and locations of fires.**

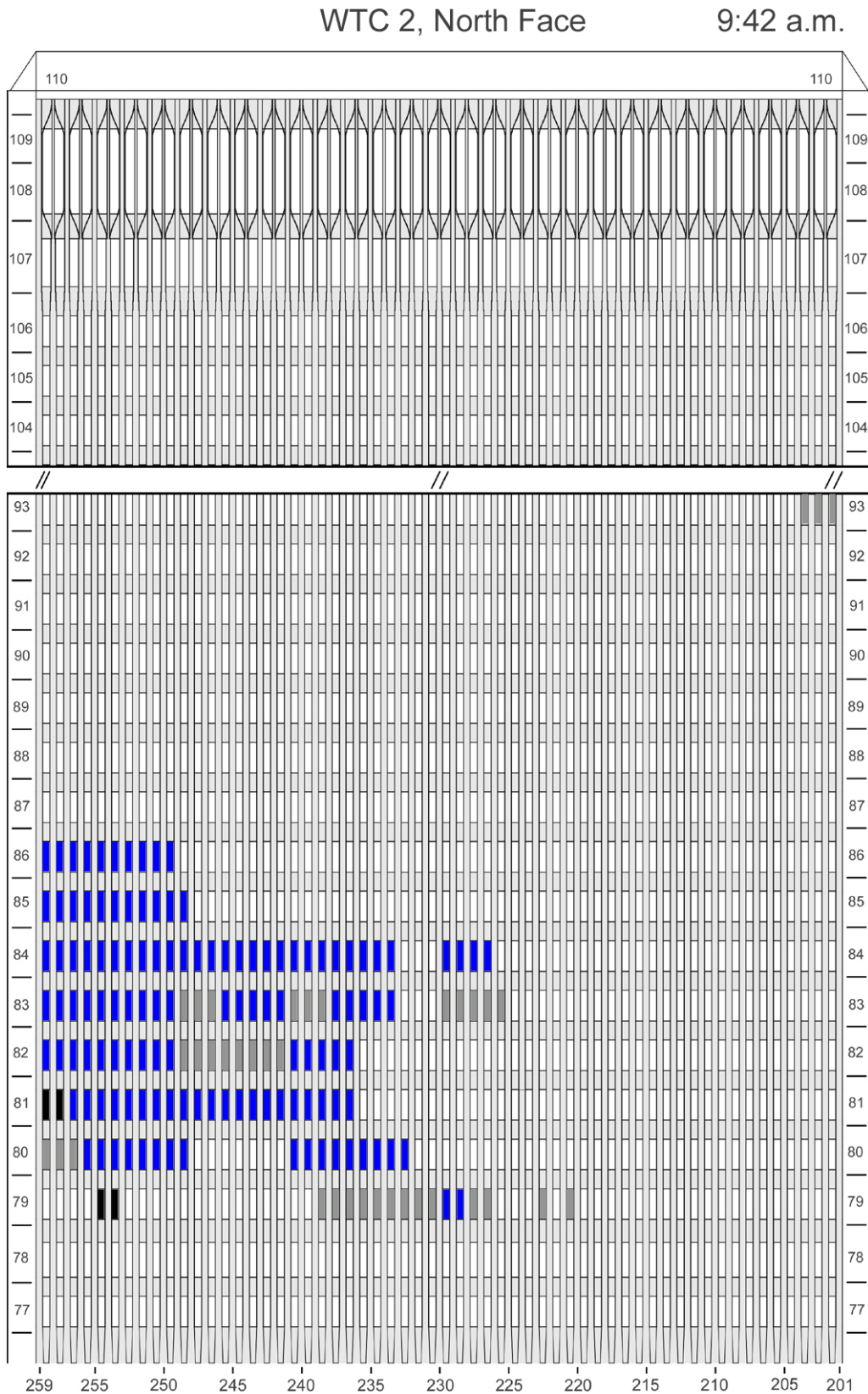




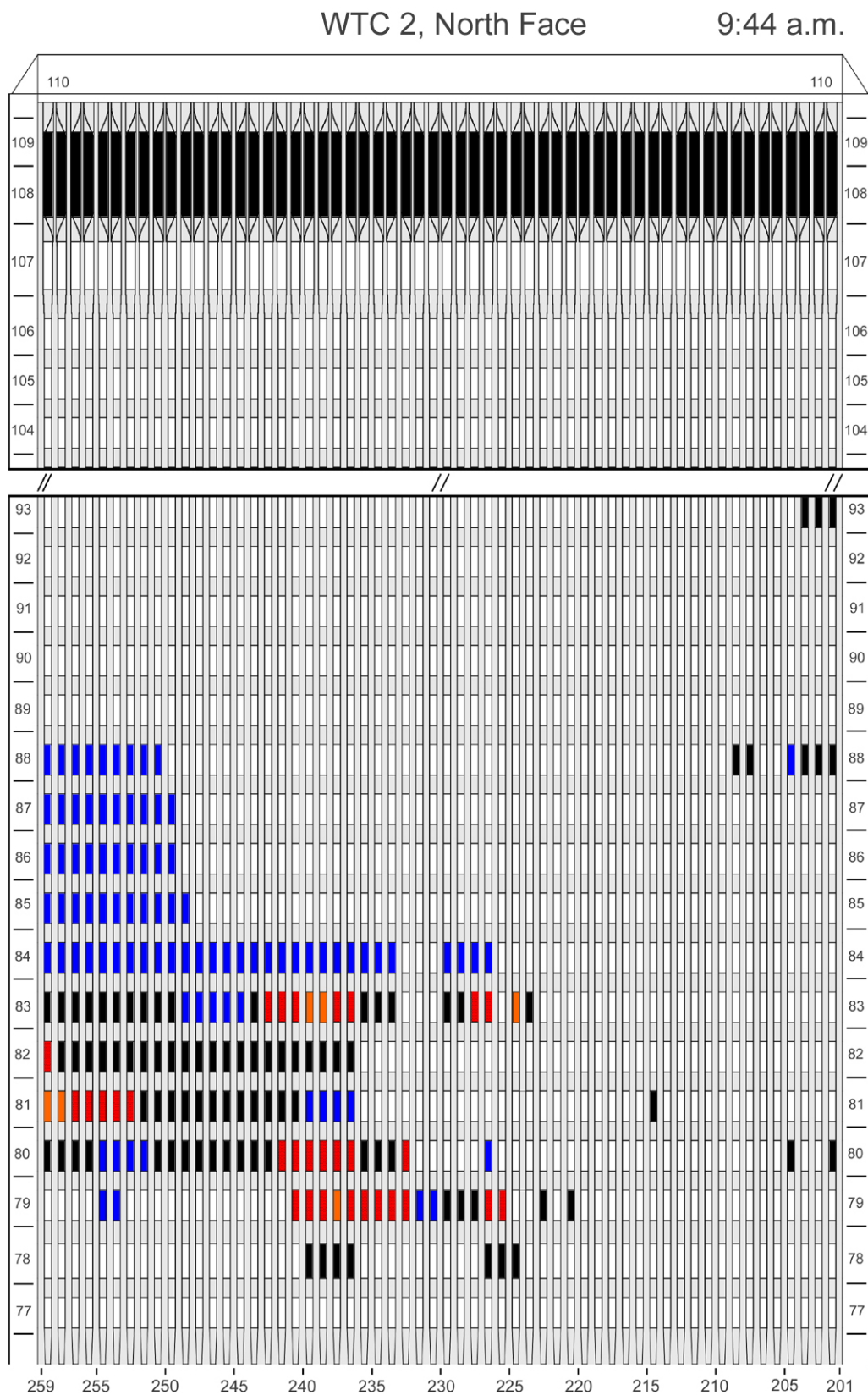
**Figure G-40. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:40 a.m. showing windows where smoke was observed and those hidden from view.**



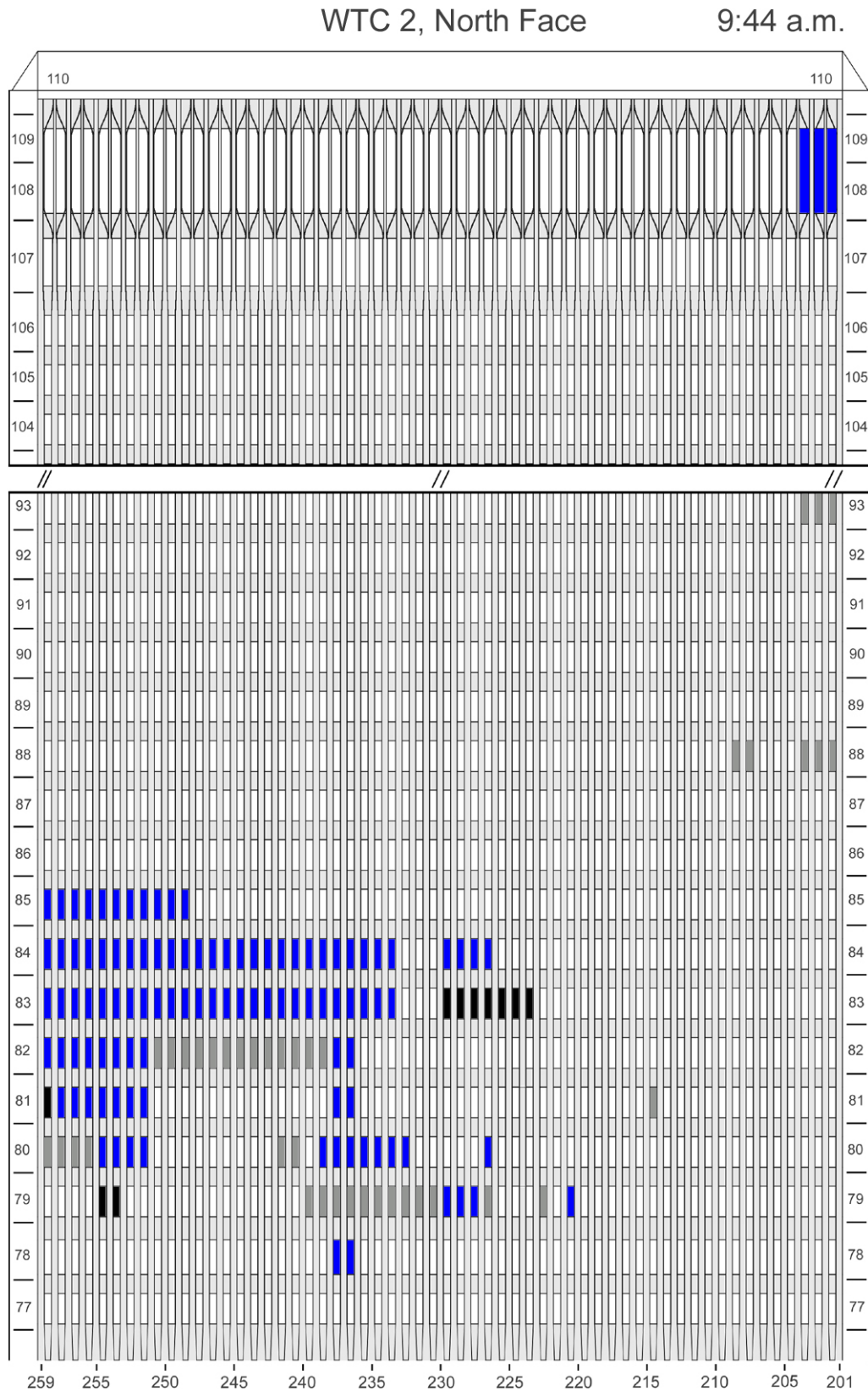
**Figure G-41. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:42 a.m. showing the condition of windows and locations of fires.**



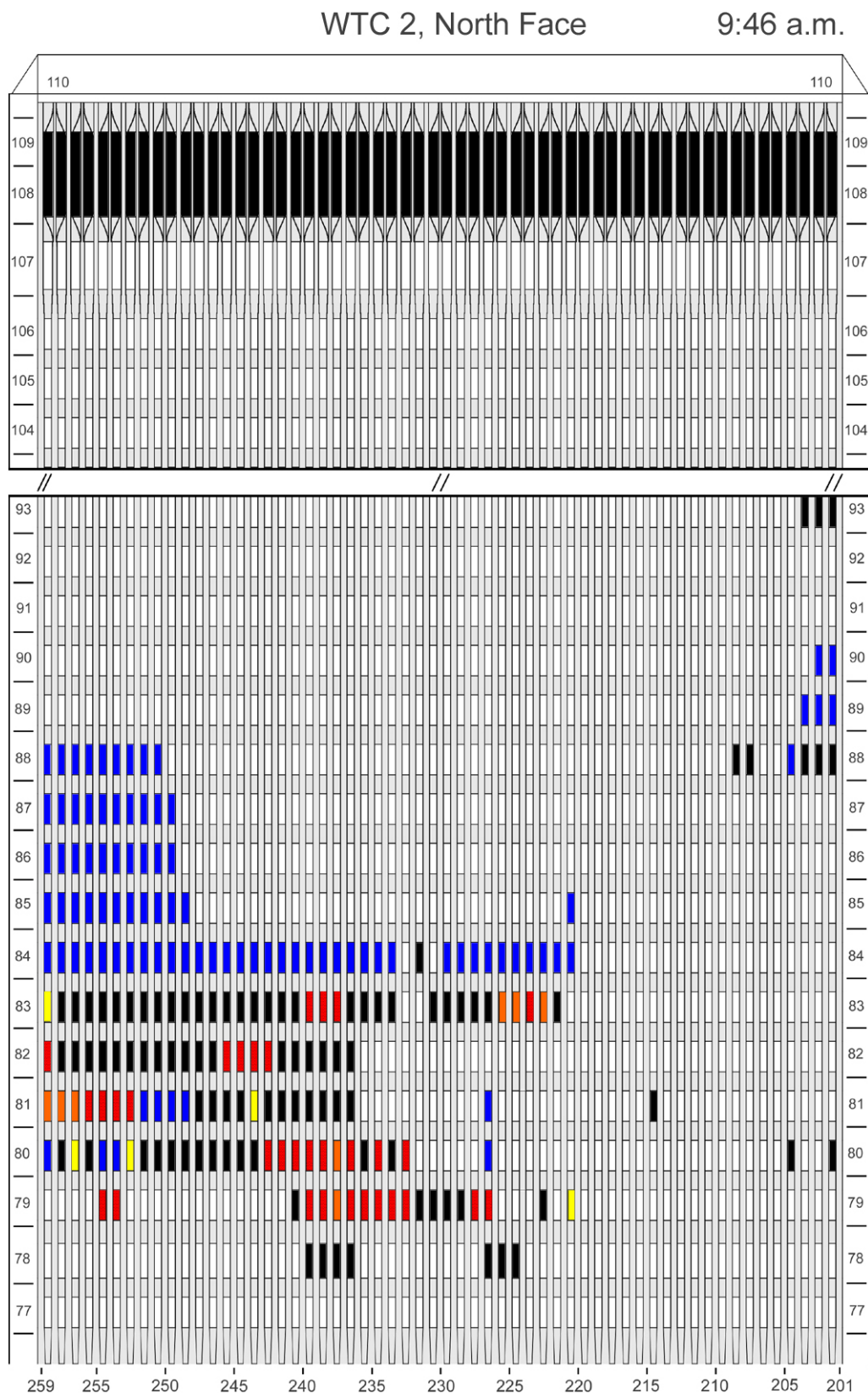
**Figure G-42. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:42 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-43. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:44 a.m. showing the condition of windows and locations of fires.**

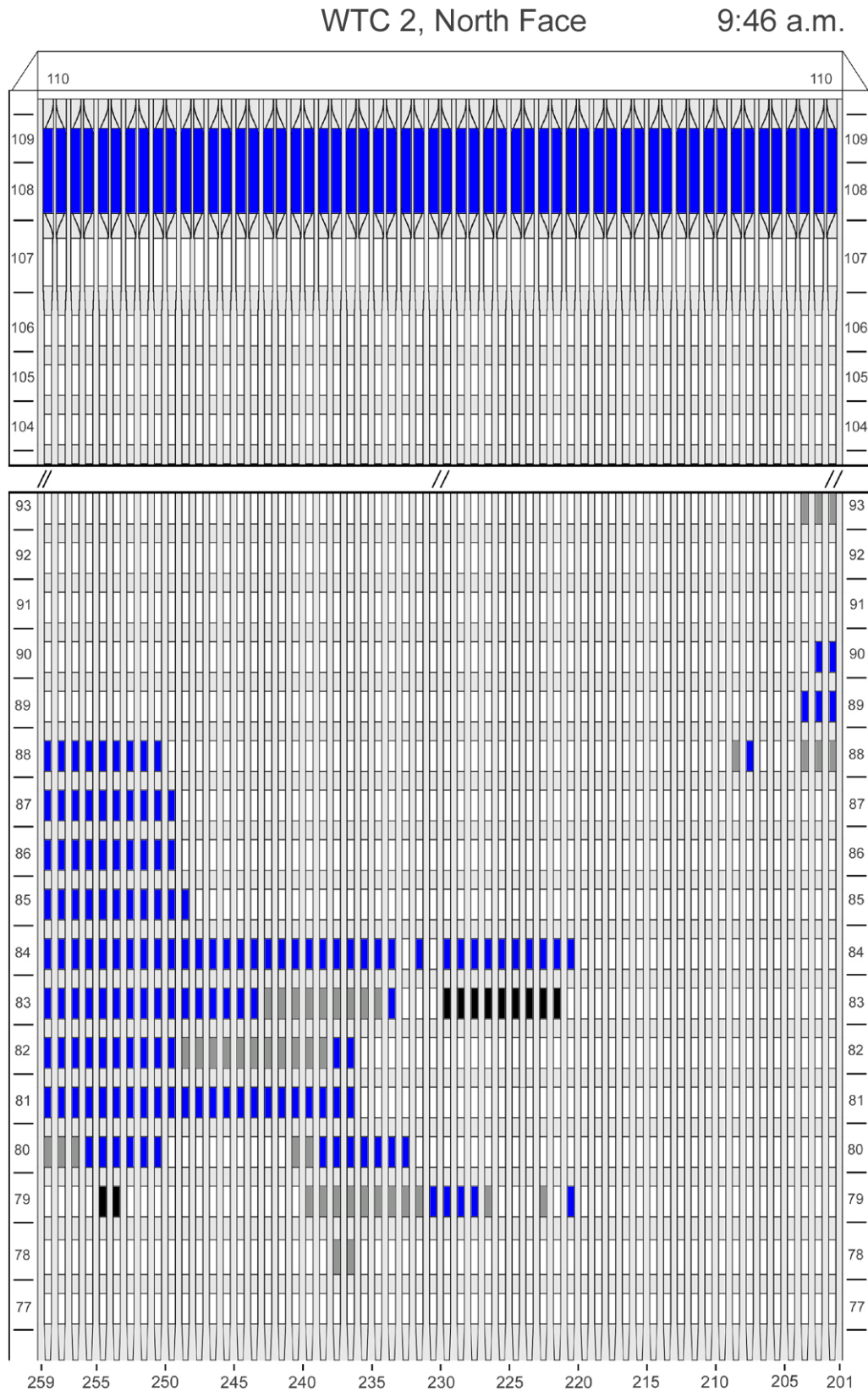


**Figure G-44. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:44 a.m. showing windows where smoke was observed and those hidden from view.**

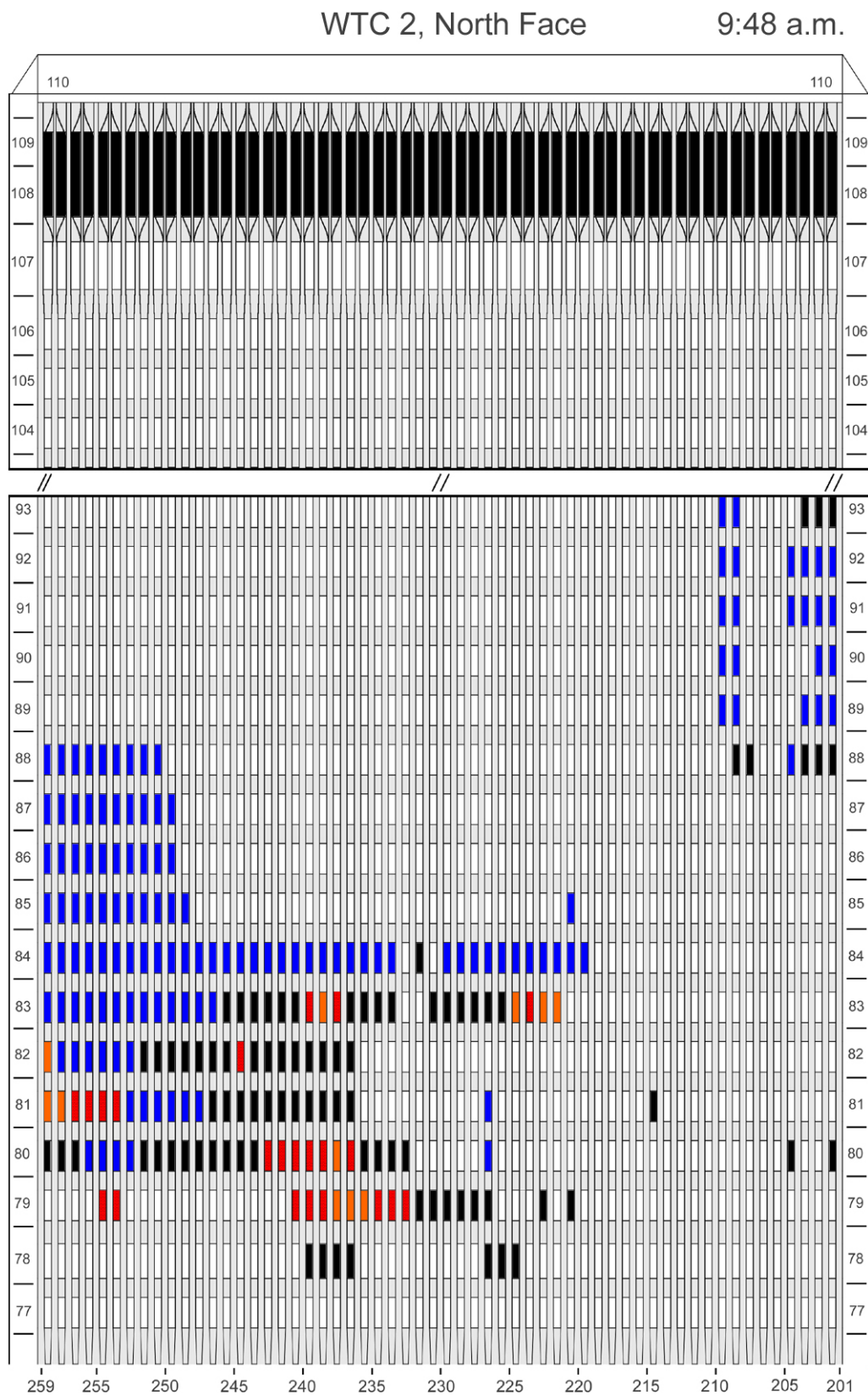


**Figure G-45. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:46 a.m. showing the condition of windows and locations of fires.**

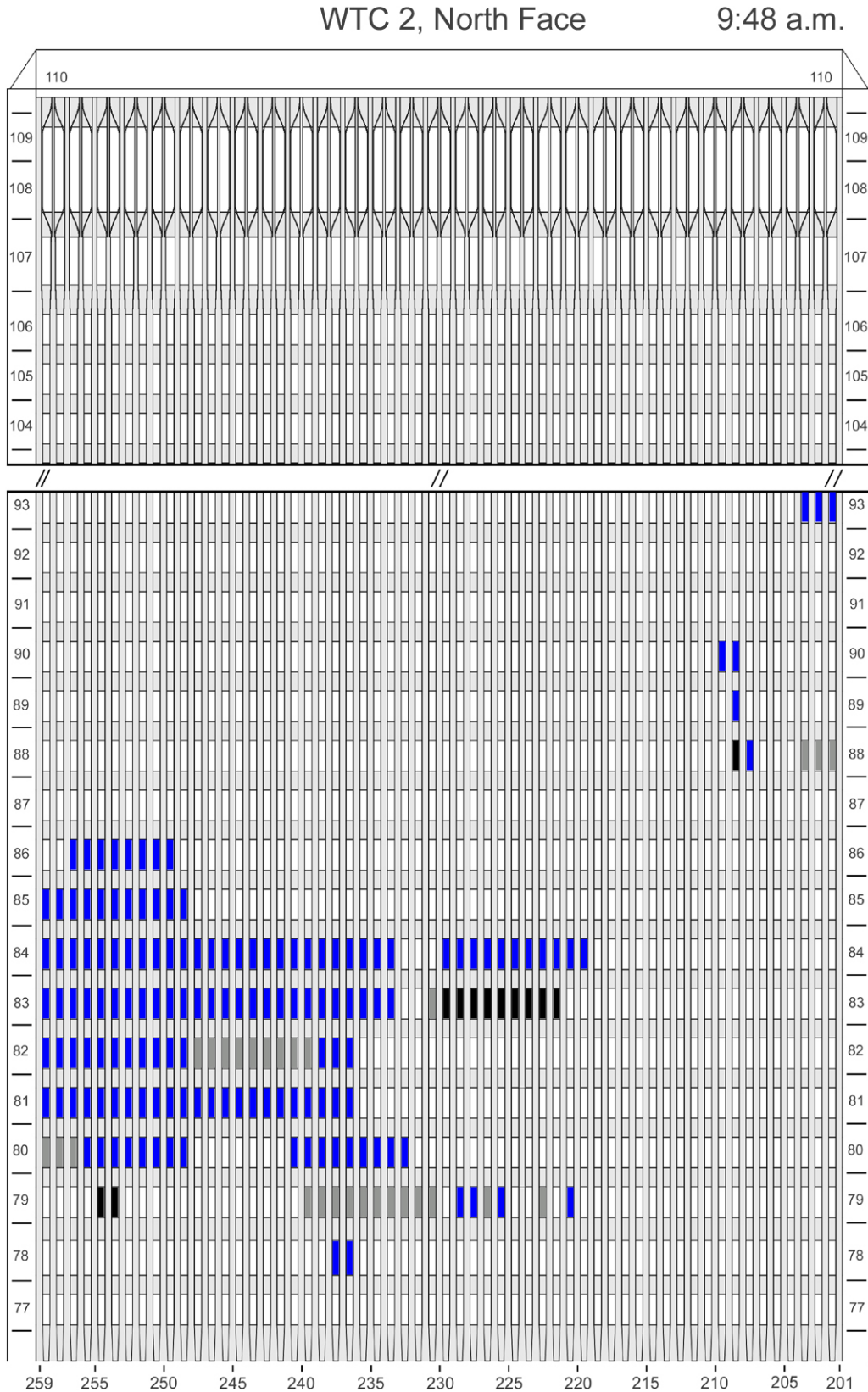




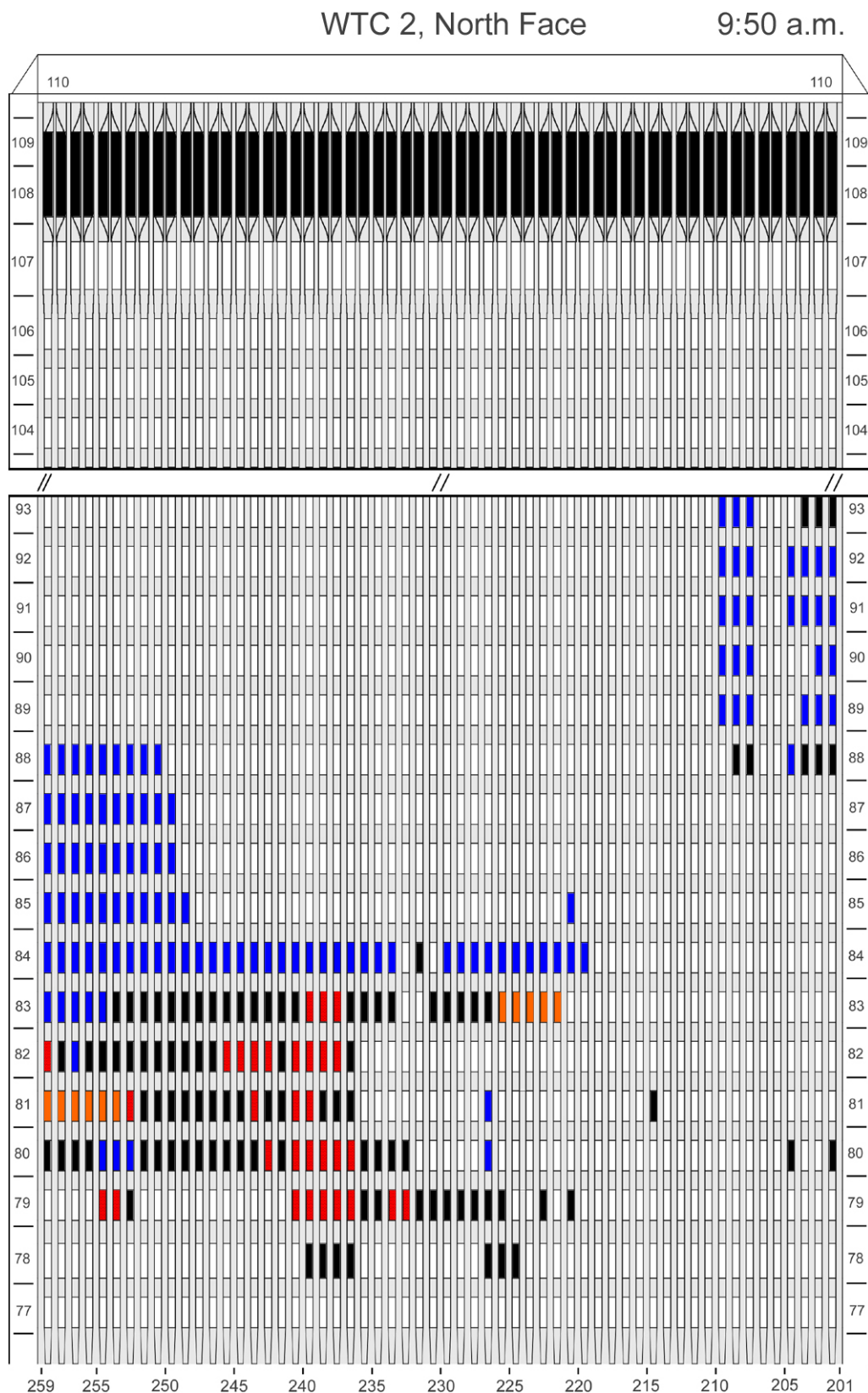
**Figure G-46. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:46 a.m. showing windows where smoke was observed and those hidden from view.**



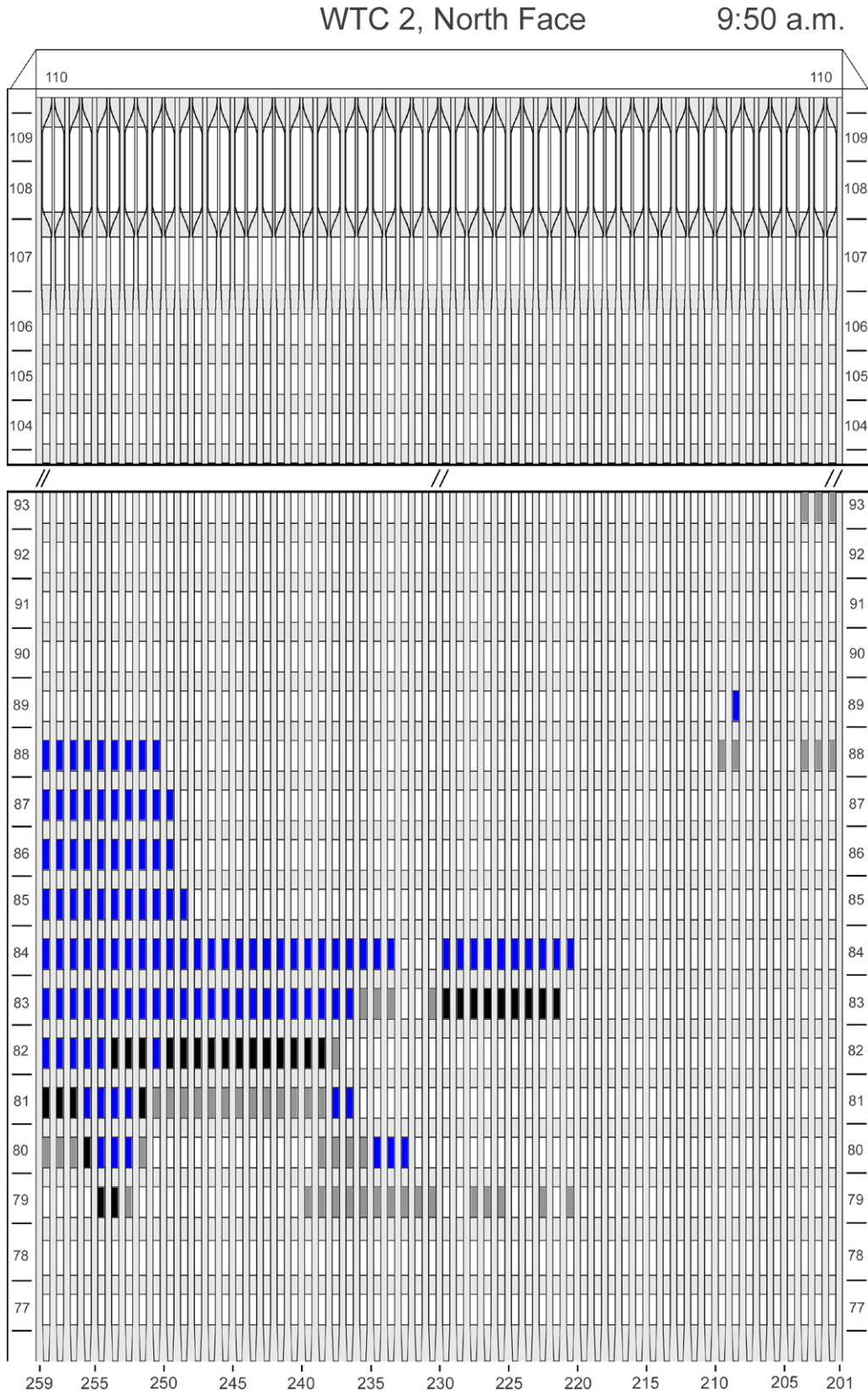
**Figure G-47. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:48 a.m. showing the condition of windows and locations of fires.**



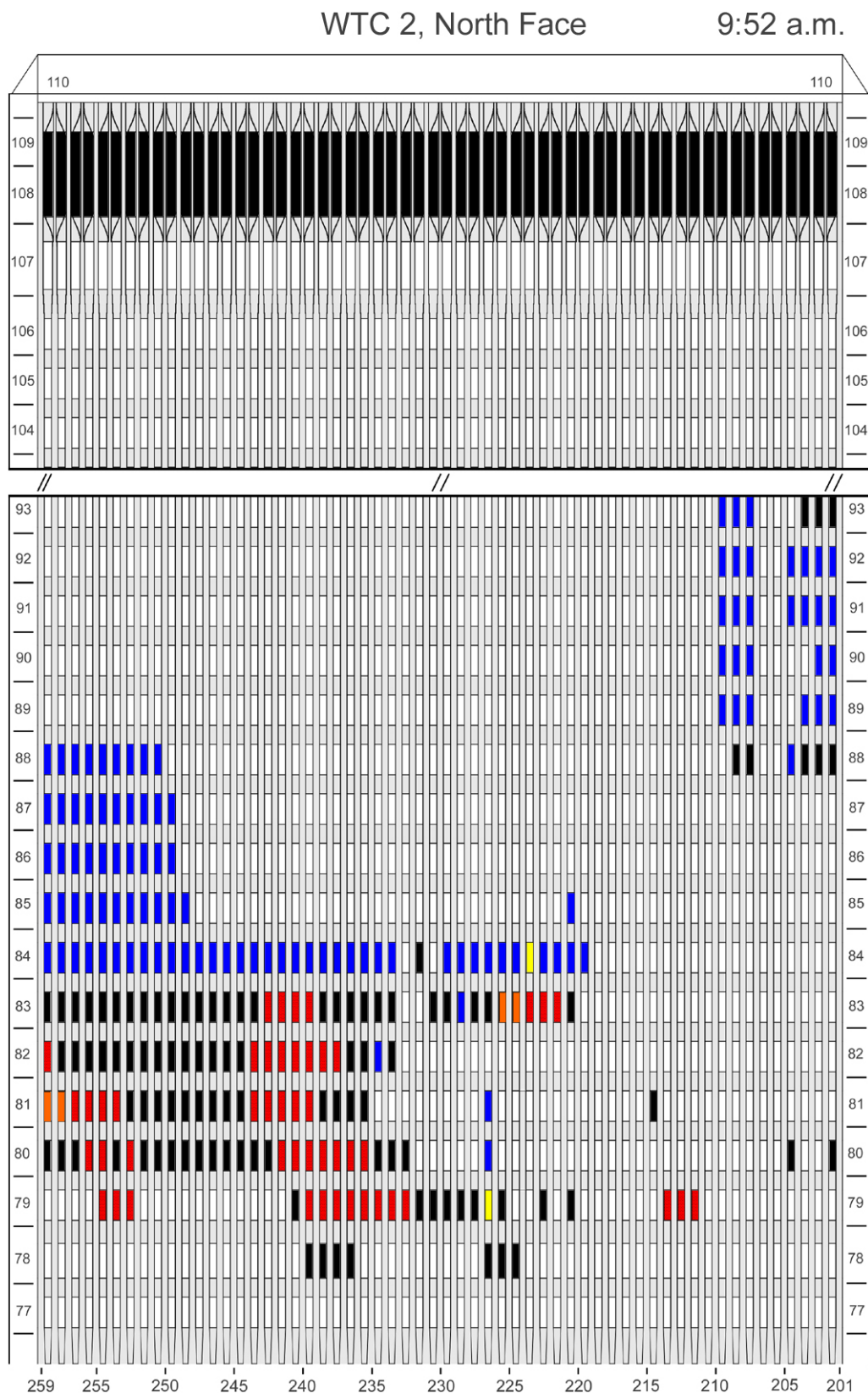
**Figure G- 48. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:48 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-49. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:50 a.m. showing the condition of windows and locations of fires.**

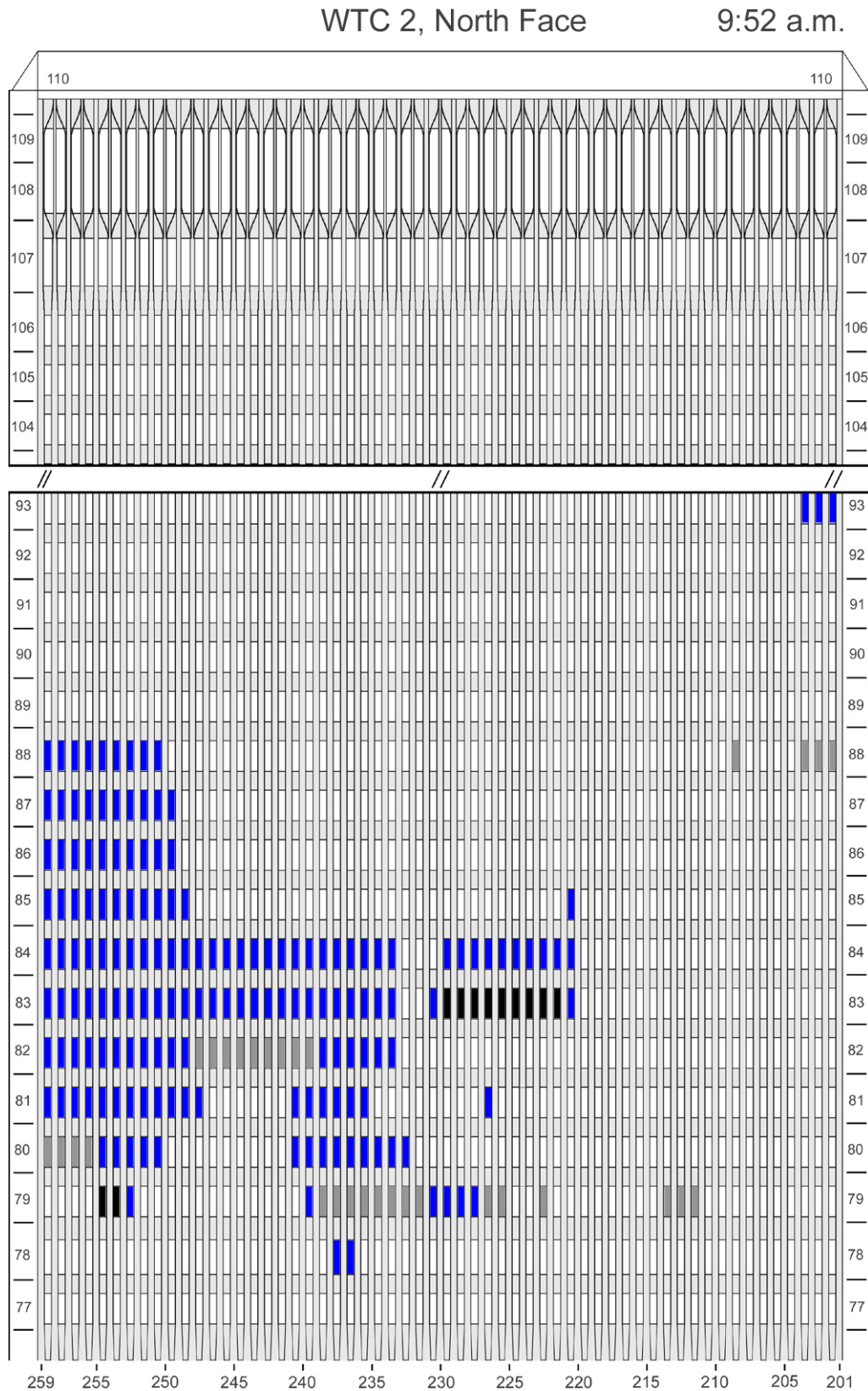


**Figure G-50. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:50 a.m. showing windows where smoke was observed and those hidden from view.**

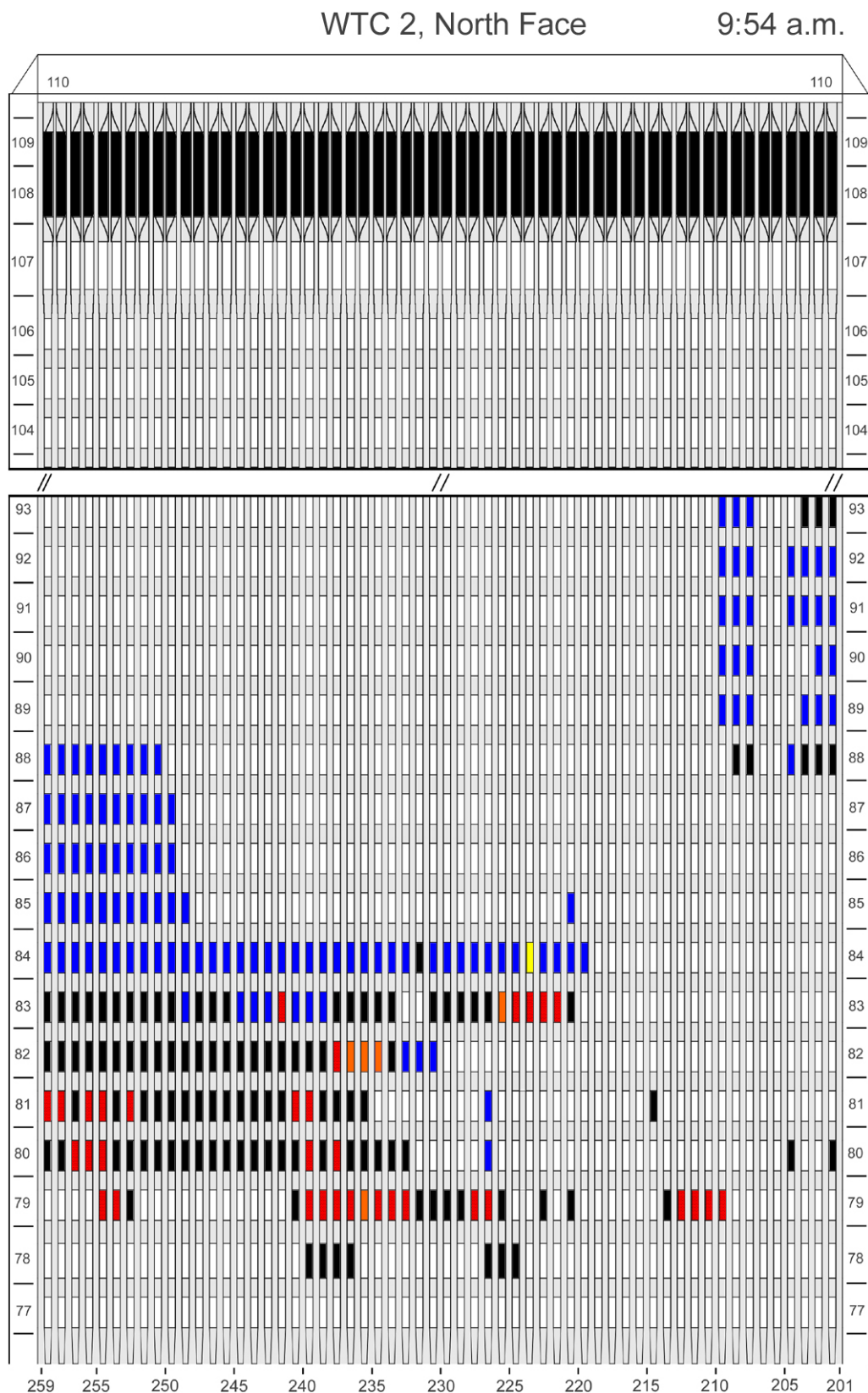


**Figure G-51. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:52 a.m. showing the condition of windows and locations of fires.**

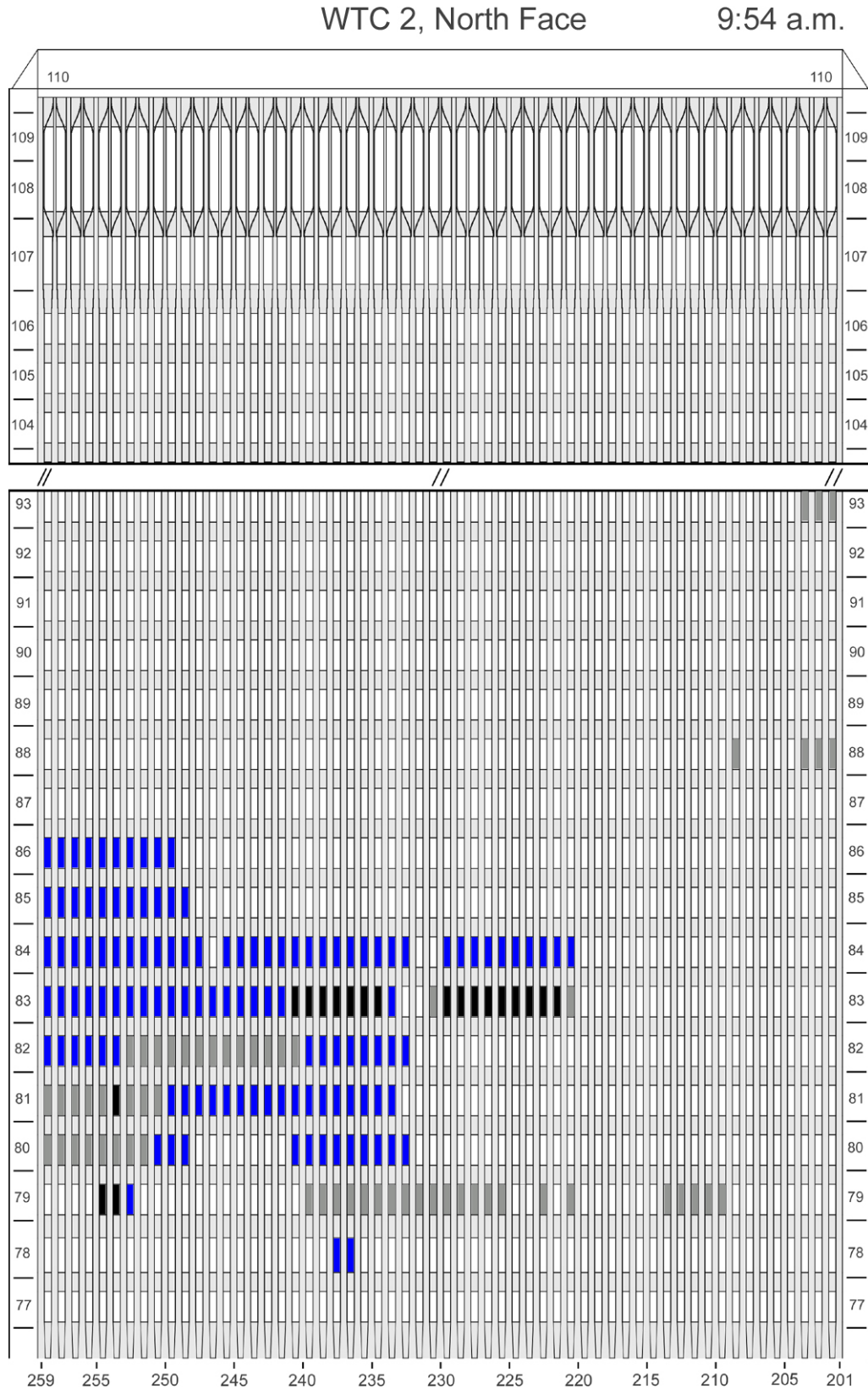




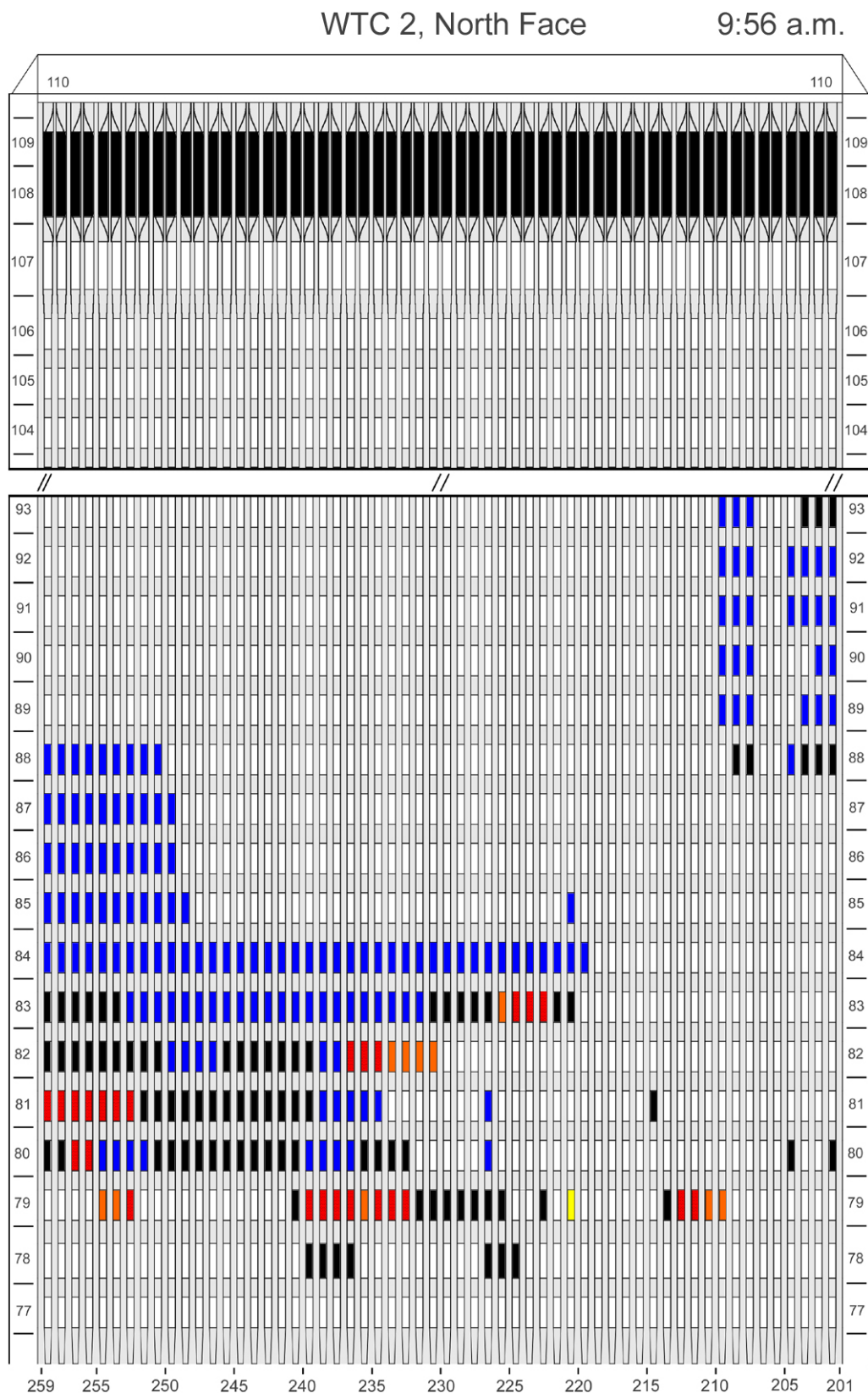
**Figure G-52. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:52 a.m. showing windows where smoke was observed and those hidden from view.**



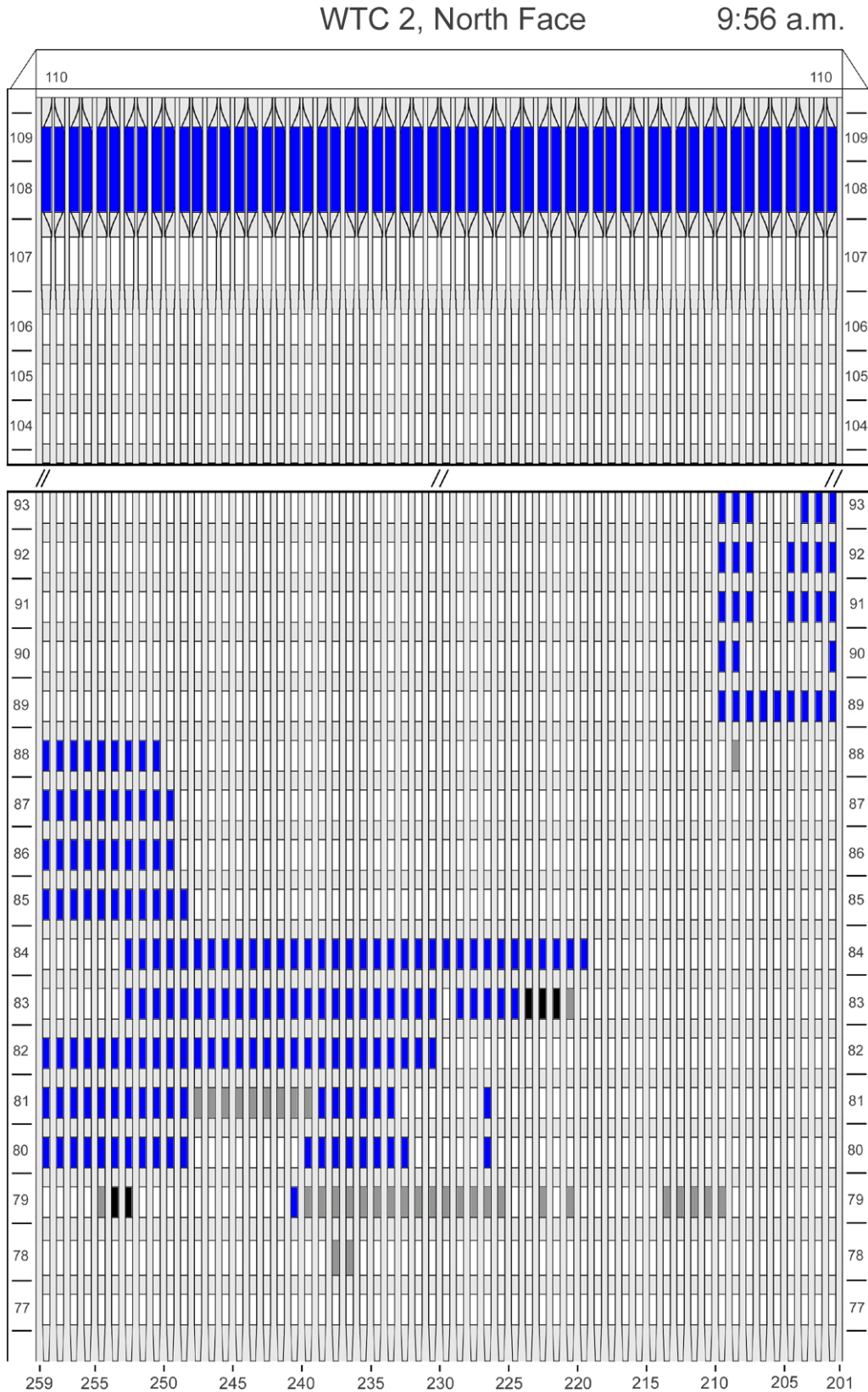
**Figure G-53. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:54 a.m. showing the condition of windows and locations of fires.**



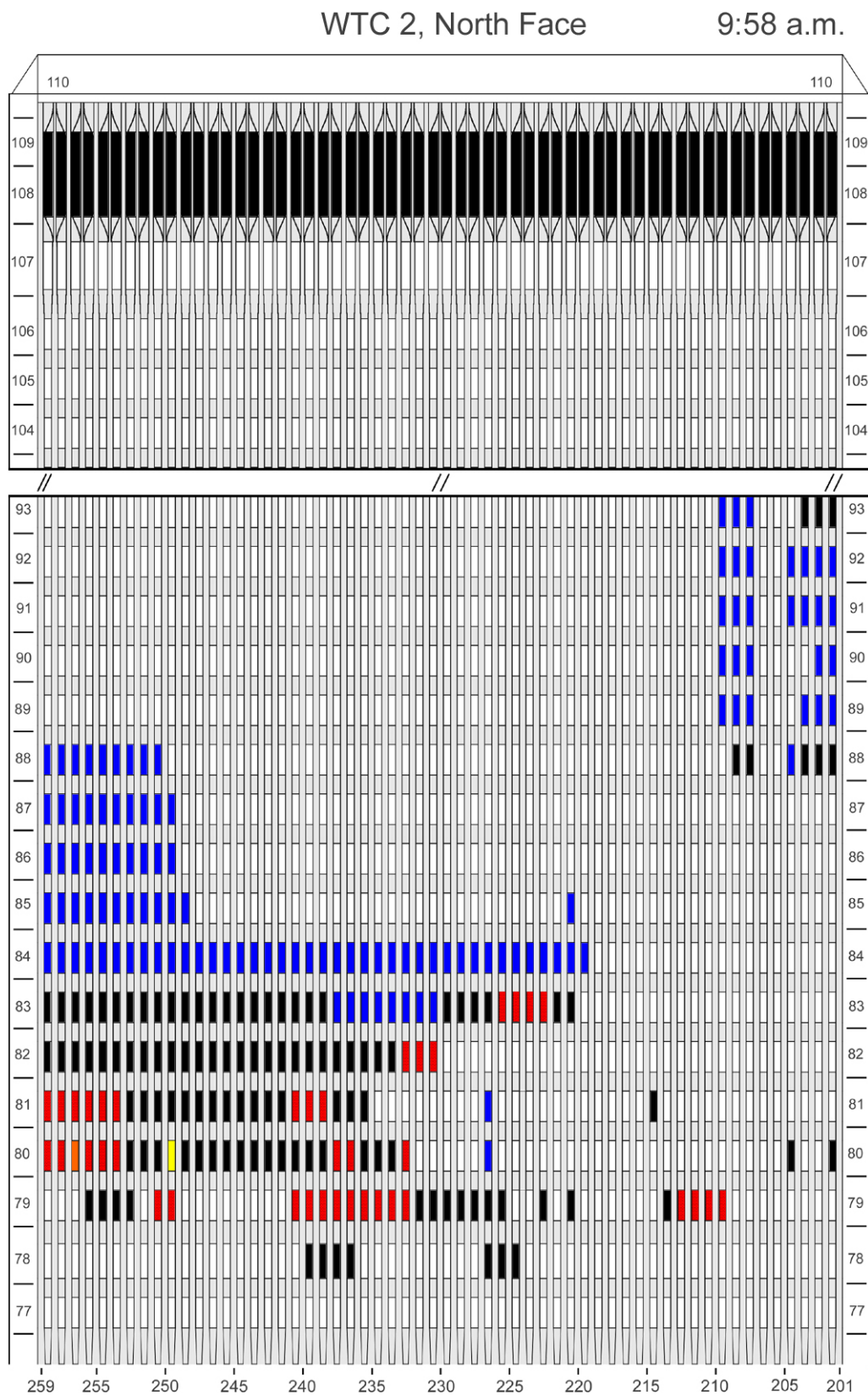
**Figure G-54. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:54 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-55. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:56 a.m. showing the condition of windows and locations of fires.**

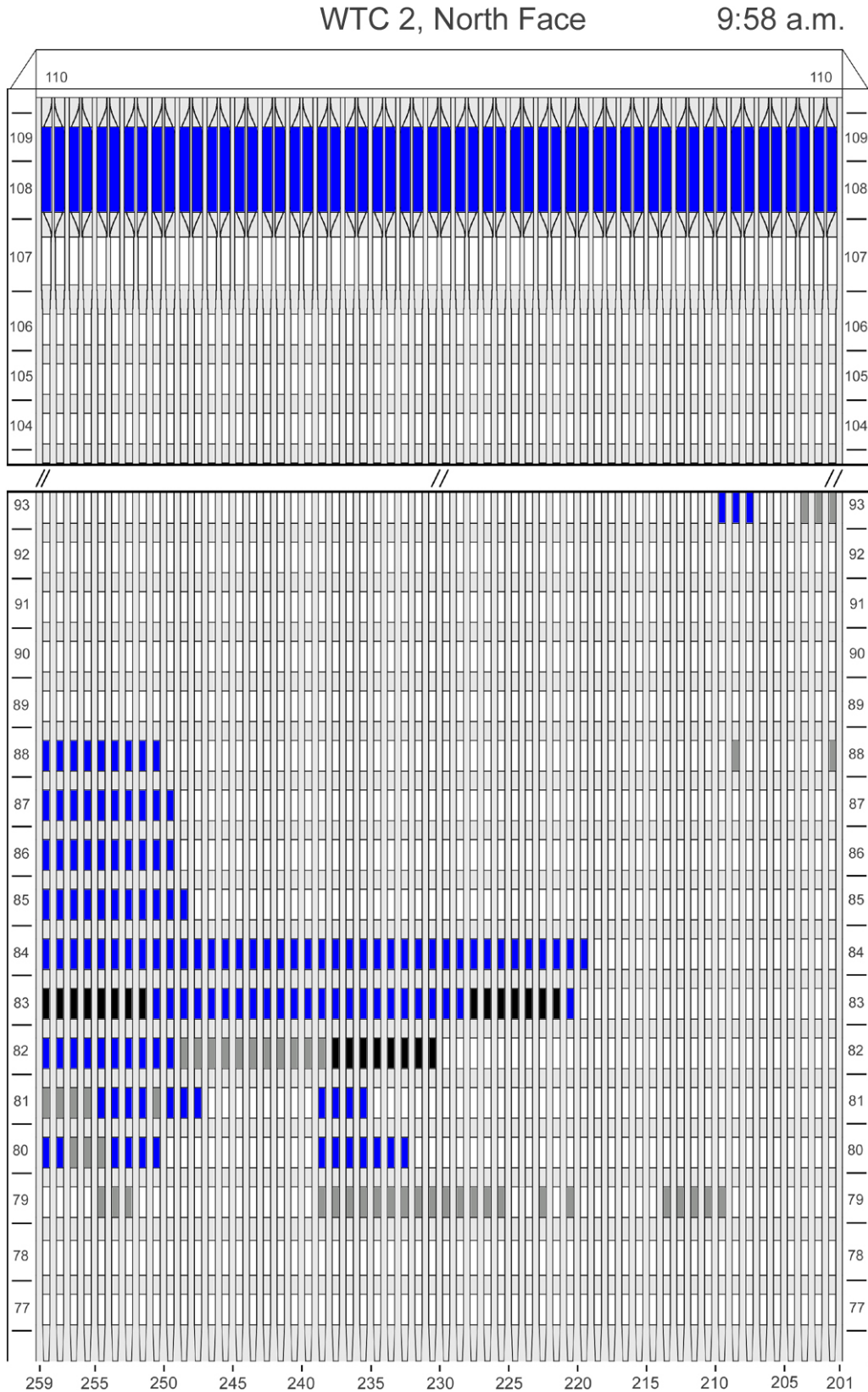


**Figure G-56. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:56 a.m. showing windows where smoke was observed and those hidden from view.**



**Figure G-57. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:58 a.m. showing the condition of windows and locations of fires.**





**Figure G-58. Diagram of the north face of WTC 2 for floors 77 to 93 and floors 104 to 110 at 9:58 a.m. showing windows where smoke was observed and those hidden from view.**

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