

**National Institute of Standards and Technology
National Construction Safety Team Investigative of the June 24, 2021
Champlain Towers South (CTS) Condominium Collapse in Surfside, FL
INTERVIEW GUIDE COMPONENT 1: CTS CONDO ASSOCIATION BOARD MEMBERS**

**OMB Control #0693-0078
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Do you have any questions for us? May we proceed with the interview?

SECTION 1. INTERVIEWEE BACKGROUND AND SECTION ASSIGNMENT

We'd like to begin the interview with a few quick questions to understand your standpoint in this event.

1.1.1. Were you a resident of the Champlain Towers South (CTS) building at the time of the collapse?

If YES, continue.

If NO, skip to Question 1.1.2.

1.1.1.1. Were you at the building on June 24, 2021, at the time of collapse?

1.1.1.2. Were you at the building on June 23, 2021, the day before the collapse?

1.1.2. Please tell us more about your residency at the CTS building. Which unit did you reside in? If you resided in more than one unit at the building, let's start with the most recent unit where you were [the interviewer fills in the table below one at a time].

<i>Champlain Towers South Unit No</i>	<i>Residency Time Period (Month-Year/Month-Year)</i>	<i>Ownership Status</i> <i>O: Owner R: Renter O: Other</i>	<i>Residency Status</i> <i>F: Full Time P: Part Time</i>	<i>Parking Area/Space #</i> <i>[the interviewer shows the parking space map]</i>

1.1.3. Did you serve on the Condo Association Board while residing at CTS?

Use the table below for assigning sections to the CTS Association Board Members

<i>Stakeholder Status</i>	<i>Relevant Sections</i>
CTS Condo Association Board Member	2, 3, 4, 5 (if present at CTS the day before the collapse), 6 and 7 (if present at CTS at the time of collapse), 8, 9, 10, and 11

SECTION 2. CTS BUILDING CONDITION (PRE-COLLAPSE)

Thank you for providing this information. Now, we will move into a more in-depth conversation. Please keep in mind that we are here mainly to listen to you. Feel free to tell us what happened, without waiting for us to ask questions. We encourage all opinions, suggestions, theories, and impressions. Please report everything, even if it seems irrelevant. We understand that it may be difficult to remember some of the specifics we may ask you about, but we will be working together to help you recall them. If you cannot remember specifics, that is fine too. You can let us know that “you don’t recall” or “you are not sure.”

Let’s first talk about your perception of the CTS building’s condition as a resident prior to the collapse. We have several drawings and photos that might help with our discussion. We should note that some of our questions may seem technical or unusual, but they will help in understanding the cause of the collapse.

2.1.1. Tell us what you remember about the condition of the CTS building.

2.1.2. Did your perspective of the building’s condition change over time from the time you were there?

If YES, continue.

If NO, skip to Question 2.1.3.

2.1.2.1. Please tell us about what led to the changes in your perspective of the building’s condition.

2.1.3. Did you have any concerns about the CTS building or an area of the CTS building being unsafe while you were there?

If YES, continue.

If NO, skip to Question 2.1.4.

2.1.3.1. Please explain the concerns you have had in as much detail as possible.

2.1.3.2. What made you think this way?

2.1.4. Did you notice anything unusual about the pool deck, including the deck itself, planters, and private patios? Some examples of observations that may be considered unusual are cracks; sagging, and puddles on top of the pool deck; discoloration; exposed steel reinforcement bars; peeling paint; new smells or sounds; and areas that were or needed to be repaired.

If YES, continue.

If NO, skip to Question 2.1.5.

2.1.4.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

2.1.4.2. Here is a visual of the pool deck [*the interviewer shows the drawing and/or photos, including those with the planter on the west of the pool deck*] in case it is helpful for your recollection. Can you mark the location of the issues you may have noticed?

2.1.4.3. To your knowledge, how were these issues addressed?

2.1.5. Are you aware of any changes that were made to the pool deck, including the deck itself, planters, and private patios at the CTS?

If YES, continue.

If NO, skip to Question 2.1.6.

2.1.5.1. Please explain these changes in detail (e.g., what, when and where).

2.1.5.2. Here is a visual of the pool deck [*the interviewer shows the drawing and/or photos, including those with the planter on the west of the pool deck*]. Can you mark the location of the changes that were made to the pool deck?

2.1.6. Did you notice anything unusual about the underground parking garage, including its floor, ceilings and columns? Some examples of observations that may be considered unusual are cracks; sagging, puddles on the garage floor; discoloration; leaks dripping onto cars or the floor; exposed reinforcing bars; peeling paint; hanging or broken pipes; unusual smell or sounds; and areas that were or had to be repaired or painted or other precautions taken (e.g., safety cones)?

If YES, continue.

If NO, skip to Question 2.1.7.

2.1.6.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

2.1.6.2. Here is a visual of the underground parking garage [*the interviewer shows the drawing and/or the photos*]. Can you mark the location of the issues you may have noticed?

2.1.6.3. To your knowledge, how were these issues in the garage addressed?

2.1.7. Please tell us what you recall about the condition of the columns in the garage.

2.1.8. Do you recall any vehicle accidents involving the parts of the basement structure such as garage columns or walls?

If YES, continue.

If NO, skip to Question 2.1.9.

2.1.8.1. Please share as many details as possible about these accidents (e.g., who, when, and where).

2.1.8.2. Here is a visual of the underground parking garage [*the interviewer shows the drawing and/or the photos*]. Can you mark the location of these accidents?

2.1.9. Do you recall noticing anything unusual in the public areas inside the first story of the building, including the recreation room, exercise room, saunas, the lobby, and the corridor? Some examples of things that are unusual are cracks; sagging, puddles; discoloration; exposed rebars; peeling paint; hanging or broken pipes; unusual smell or sounds; and areas that were or had to be repaired.

If YES, continue.

If NO, skip to Question 2.1.10.

2.1.9.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

2.1.9.2. Here is a visual of the first floor [*the interviewer shows the drawing and/or the photos*]. Can you mark the location of the issues you may have noticed?

2.1.9.3. To your knowledge, how were these issues addressed?

2.1.10. Have you ever been to the roof of the building?

If YES, continue.

If NO, skip to Question 2.1.11.

2.1.10.1. Did you notice anything unusual about the roof of the building? The examples of things that are unusual are heavy equipment or materials placed on the roof or water puddles.

If YES, continue.

If NO, skip to Question 2.1.11.

2.1.10.1.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

2.1.10.1.2. Here is a visual of the roof [*the interviewer shows the drawing and/or the photos*]. Can you mark the location of the issues you may have noticed?

2.1.10.1.3. To your knowledge, how were these issues addressed?

2.1.11. While at CTS, did you notice any changes in the structure of the building?

Examples are loose concrete spalls or fragments, rust from exposed reinforcing steel, and patches on concrete slabs, columns, or walls.

If YES, continue.

If NO, skip to Question 2.1.12.

2.1.11.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

2.1.11.2. Here is a visual that might help [*the interviewer shows the relevant visuals here*]. Let us mark where you noticed these changes.

2.1.12. Did you or others who lived or worked there experience any unusual swaying, shaking, vibrations or sounds in the CTS building prior to the night of the collapse? You might have experienced these while the former Howard Johnson Dezerland Hotel was being demolished or while the neighboring 87 Park was being constructed or during beach nourishment projects and/ or during a hurricane or a storm (e.g., Hurricane Andrew, Frances, Wilma, Katrina, Irma), for example.

If YES, continue.

If NO, skip to Question 2.1.13.

2.1.12.1. We would appreciate as much detail as possible about these experiences (e.g., what you/they experienced, when you/they experienced them, including how long you/they experienced them, where you/they experienced them, and what was done about these issues).

2.1.12.2. Here is a visual to help us mark your experiences [*the interviewer shows the relevant visuals here*].

2.1.13. Did you live in the building during the 40-year recertification process?

If YES, continue.

If NO, skip to Question 2.1.14.

2.1.13.1. Please tell us about your experiences involving the 40-year recertification process.

2.1.13.2. As part of the 40-year recertification process, what was shared with CTS residents/staff about what needed to be done at the building?

2.1.13.3. Do you recall any discussions involving the structural safety of the building as part of the 40-year recertification process?

If YES, continue.

If NO, skip to Question 2.1.14.

2.1.13.3.1. What concerns were raised with respect to the structural safety of the building?

2.1.13.3.2. What was planned to address these concerns?

2.1.14. Did you attend any CTS Condo Board meetings as a resident of the building?

If YES, continue.

If NO, skip to Question 2.1.15.

2.1.14.1. How often did you attend the CTS condo board meetings?

2.1.14.2. Tell us what you remember about any discussions regarding the safety of the building in CTS Condo Board meetings.

2.1.15. Did you notice anything unusual in any part of the building a few days or weeks before the collapse? The examples of observations that may be considered unusual are cracks; sagging; puddles; discoloration; leaks; exposed rebar; peeling paint; hanging or broken pipes; doors or windows not operating smoothly or jamming; unusual smell or sounds; and areas that were or had to be repaired.

If YES, continue.

If NO, skip to Question 2.1.16.

2.1.15.1. Please provide details about these issues (e.g., what, when, and where).

2.1.15.2. Please explain what was done about these issues.

2.1.15.3. Here is a visual that might help [the interviewer shows the relevant visuals here]. Let us mark where you noticed these issues.

2.1.16. Based on what you know about the building's condition, what do you think may have contributed to the collapse of the Champlain Towers South?

2.1.16.1. Please explain what makes you think that.

SECTION 3. CTS UNIT CONDITION (PRE-COLLAPSE)

We also would like to ask you a few questions about the condition of _____ (units/your unit/Unit No. _____) and what you might have seen or heard from others about other units.

3.1.1. Did you notice anything unusual about the unit, including the floor, the ceilings, the walls and columns, the doors or windows? Some examples of observations that may be considered unusual are cracks; sagging, puddles; discoloration; leaks; exposed rebar; peeling paint; hanging or broken pipes; doors or windows not operating smoothly or jamming; unusual smell or sounds; and areas that were or had to be repaired.

If YES, continue.

If NO, skip to Question 3.1.2.

3.1.1.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

3.1.1.2. Here is a visual that might help [*the interviewer shows the relevant visuals here*]. Let us mark where you noticed these issues.

3.1.1.3. Please explain what was done about these issues.

3.1.2. Please describe the problems you personally observed or heard about the other units within CTS. Again, we would appreciate as much detail as possible (e.g., what, when, and where).

3.1.2.1. Please explain if anything was done about these issues to the best of your knowledge.

3.1.3. Did you or others notice anything unusual in their units a few days or weeks before the collapse?

If YES, continue.

If NO, skip to the next section.

3.1.3.1. Please provide details about these issues (e.g., what, when, and where).

3.1.3.2. Please explain what was done about these issues to the best of your knowledge.

SECTION 4. SERVICE AT THE CTS BUILDING

We would like to have a conversation with you about your service on the Association Board. Please keep in mind that our only goal is to understand what was happening with the structure at the time and that this is a technical investigation, as opposed to a fault-finding investigation. All you say is confidential and will not be shared with anyone outside this technical investigation. We would really appreciate any details you could share with us.

4.1.1. When did you serve on the CTS Condo Association Board?

4.1.2. What was your role and responsibilities on the Board?

4.1.3. Who else was on the Board during that time (e.g., President, Vice President, Secretary, Treasurer, members)?

4.1.4. Who were the Building Managers at the time?

4.1.5. Who were the maintenance staff?

4.1.6. In your time on the Association Board, what were the building issues the Board had to deal with? Please explain in as much detail as possible (e.g., what, when and where).

4.1.6.1. How were these issues addressed?

4.1.7. Did any of these issues involve the safety of the building?

If YES, continue.

If NO, skip to Question 4.1.8.

4.1.7.1. Please explain what these issues were in as much detail as possible.

4.1.7.2. How were these issues addressed?

4.1.8. During your service, did the Board have any work conducted at the pool deck?

If YES, continue.

If NO, skip to Question 4.1.9.

4.1.8.1. Please explain such work in as much detail as possible (e.g., what, why, when and where) [*the interviewer uses visuals as necessary*].

4.1.9. Do you recall any work at the pool deck involving adding and replacing of pavers or tiles?

If YES, continue.

If NO, skip to Question 4.1.10.

4.1.9.1. Please explain what was done in as much detail as possible.

4.1.10. Do you recall any work at the pool deck involving adding or replacing of sand or concrete fill?

If YES, continue.

If NO, skip to Question 4.1.11.

4.1.10.1. Please explain what was done in as much detail as possible.

4.1.11. During your service, was waterproofing membrane installed or replaced at the pool deck?

If YES, continue.

If NO, skip to Question 4.1.12.

4.1.11.1. Please provide as much detail as possible on the installation process (e.g., when, why, where, and how).

4.1.12. Was any work conducted by the Board involving the planters and the shrubbery or trees in the planters (e.g., removal of palm trees)?

If YES, continue.

If NO, skip to Question 4.1.13.

4.1.12.1. Please explain this work in as much detail as possible (e.g., when, why, where, and how).

4.1.12.2. Please explain the process (e.g., removal of palm trees) step by step in as much detail as possible.

- 4.1.12.3. What were the condition of the planter boxes at the time (e.g., cracking, shifting, or leakage)?
- 4.1.13. To your knowledge, were any fertilizers, insecticides, or other chemicals used in the planters?
- 4.1.14. When was the last remodeling of the pool deck?
- 4.1.14.1. Please tell us what the latest remodeling of the pool deck involved.
- 4.1.15. During your service, did the Board have any work conducted at the underground parking garage (e.g., fixing of garage ceiling, floor and/or columns)?
- If YES, continue.*
- If NO, skip to Question 4.1.16.*
- 4.1.15.1. Please explain such work in as much detail as possible (e.g., what, why, when and where) [*the interviewer uses visuals as necessary*]
- 4.1.16. During your service, what were the most common maintenance requests and complaints that the Board had to deal with? Please explain in as much detail as possible (e.g., what, why, when and where).
- 4.1.16.1. To your knowledge, how were these issues addressed?
- 4.1.17. What were the maintenance requests and complaints the Board typically received with respect to the pool deck?
- 4.1.17.1. Please explain the nature of these requests and complaints in detail (e.g., what, when and where).
- 4.1.17.2. How were these requests and complaints addressed?
- 4.1.18. What were the maintenance requests and complaints the Board typically received with respect the underground parking garage (e.g., leakage, cracking and/or discoloration)?
- 4.1.18.1. Please explain the nature of these requests and complaints in detail (e.g., what, why, when and where).
- 4.1.18.2. How were these requests and complaints addressed?
- 4.1.19. Were there other building related issues we have not yet discussed that the CTS residents complained about at the time?
- If YES, continue.*
- If NO, skip to Question 4.1.20.*
- 4.1.19.1. Please tell us what those issues were in as much detail as possible (e.g., what, why, when and where).
- 4.1.19.2. How were these issues addressed?
- 4.1.20. Does anything else come to mind related to the pool deck and/or the underground parking garage that we did not cover while discussing what the Board did in these areas of the building?
- If YES, continue.*
- If NO, skip to Question 4.1.21.*

4.1.20.1. Please tell us what you remember about these areas during your service.

4.1.21. During your service at the CTS, was anyone hired to conduct a condition survey?
A condition survey provides information for maintenance or capital work that is required and lays out a plan for work that is needed immediately and over time.

If YES, continue.

If NO, skip to Question 4.1.22.

4.1.21.1. Please tell us more about the condition survey (e.g., who was hired, when, what the findings were).

4.1.21.2. What happened after the condition survey was conducted?

4.1.22. Do you recall any discussions about conducting a condition survey during your service at the CTS?

If YES, continue.

If NO, skip to Question 4.1.23.

4.1.22.1. Please tell us more about the reasons behind a condition survey not being conducted.

4.1.23. Were you on the Board while the Howard Johnson Dezerland Hotel was being demolished or the 87 Park building was being constructed?

If YES, continue.

If NO, skip to Question 4.1.24.

4.1.23.1. In your time(s) on the Association Board, did any issues arise at the CTS building during the demolition of Howard Johnson Dezerland Hotel and/or construction of 87 Park?

If YES, continue.

If NO, skip to Question 4.1.24.

4.1.23.2. What can you tell us about the nature of any complaints from CTS residents about the adjacent demolition or construction (e.g., vibrations felt, damage to their units or the building)?

4.1.23.3. When were these issues raised?

4.1.23.4. To your knowledge, how were these issues addressed (e.g., filing a legal complaint, retaining legal advice and/or an engineer, performing a pre-construction survey, setting up of a monitoring system)?

4.1.24. Did you notice any changes in the CTS building or in different areas of the building (e.g., the pool deck, underground garage, the south perimeter wall) during this time?

If YES, continue.

If NO, skip to Question 4.1.25.

4.1.24.1.1. Please tell us what you noticed.

4.1.24.1.2. Let's mark where you noticed these issues here [*the interviewer shows the relevant visuals here*].

4.1.24.2. Do you recall any damage or allegations of damage to the south masonry privacy walls?

If YES, continue.

If NO, skip to Question 4.1.25.

4.1.24.2.1. Please tell us what you remember about such damage or the allegations of damage to the south masonry privacy walls.

4.1.24.2.2. Do you recall what was done to the south masonry privacy wall and the south concrete perimeter basement wall that were alleged to have been caused by the 87 Park construction?

4.1.25. Were you on the Board while beach nourishment projects were being undertaken?

If YES, continue.

If NO, skip to Question 4.1.26.

4.1.25.1. Please explain the nature of beach nourishment projects undertaken during your time on the Association Board (e.g., by whom, what, how, when, and where).

4.1.25.2. What can you tell us about the nature of complaints from CTS residents about the beach nourishment projects, if any?

4.1.25.3. When were these issues raised?

4.1.25.4. How were these issues addressed?

4.1.26. During your tenure on the Board, were there any storms or hurricane that were alleged to have caused damage to the CTS building? Examples of such events are Hurricane Andrew (1992), Georges (1998), Irene (1999), Frances (2004), Jeanne (2004), Katrina (2005), Wilma (2005), and Irma (2017).

If YES, continue.

If NO, skip to Question 4.1.27.

4.1.26.1. Please explain the damage in detail (e.g., what [e.g., leaks, cracks], when, and where).

4.1.26.2. Now let's mark the damages on these visuals [the interviewer shows the relevant visuals].

4.1.26.3. How were these damages addressed?

4.1.26.4. Did anyone in the building report hearing the building make noises (e.g., creaking) at the time of any of these events?

If YES, continue.

If NO, skip to Question 4.1.27.

4.1.26.4.1. Please tell us what was reported and by whom.

4.1.27. Were you on the Board during the 40-year recertification process?

If YES, continue.

If NO, skip to Question 4.1.28.

4.1.27.1. Please tell us about the 40-year recertification process undertaken by Morabito Consultants.

4.1.27.2. Were other consultants considered for this work?

If YES, continue.

If NO, skip to Question 4.1.27.3.

4.1.27.2.1. Please tell us about the decision-making process involving the selection of Morabito Consultants for the 40-year recertification work.

4.1.27.3. What was the scope of Morabito Consultants' work for the CTS building?

4.1.27.4. What were the various phases of work that were undertaken under Morabito Consultants?

4.1.27.5. Did Morabito recommend any emergency or urgent work be done?

If YES, continue.

If NO, skip to Question 4.1.27.6.

4.1.27.5.1. What type of work did Morabito considered to be urgent?

4.1.27.5.2. How did Morabito explain the urgency of this work?

4.1.27.6. Did you accompany the Morabito engineers while they were at the CTS building?

If YES, continue.

If NO, skip to Question 4.1.27.7.

4.1.27.6.1. Which areas of the building did Morabito engineers visit?

4.1.27.7. Please tell us about the status of work involving what is listed below at the time of collapse.

<i>Work Involving</i>	<i>Planned but Not Started</i>	<i>Started but Not Completed (Please explain when the work was started and how much work was done at the time of the collapse)</i>	<i>Completed</i>	<i>Unsure</i>
Building, doors and windows				
Balconies				
Street level parking deck				
Pool deck <u>Ask follow-up questions listed in this row if this work was</u>		Please let us know what was done at the pool	Please let us know what was done at the pool	

<p><u>“started but completed” or “completed”</u></p>		<p>deck with respect to:</p> <ul style="list-style-type: none"> • regrading of the pool deck • adding or replacement of pavers and tiles • adding of sand or concrete fill • adding of new drains • excavation and re-waterproofing of planters 	<p>deck with respect to:</p> <ul style="list-style-type: none"> • regrading of the pool deck • adding or replacement of pavers and tiles • adding of sand or concrete fill • adding of new drains • excavation and re-waterproofing of planters 	
Swimming pool				
Underground parking garage				
South perimeter wall				
<p>Roofing and maintenance anchors</p> <p><u>Ask follow-up questions listed in this row if this work was “started but completed” or “completed”</u></p>		<p>Please confirm the name of the company that received the contract for the roofing work.</p> <p>Please tell us how materials were lifted to the roof.</p> <p>If a crane was used to lift materials, where was it situated during the process?</p> <p>Do you recall whether roof drains were filled/stopped as part of the roofing contract?</p>	<p>Please confirm the name of the company that received the contract for the roofing work.</p> <p>Please tell us how materials were lifted to the roof.</p> <p>If a crane was used to lift materials, where was it situated during the process?</p> <p>Do you recall whether roof drains were filled/stopped as part of the roofing contract?</p>	

Installation of the new gas line <u>Ask follow-up questions listed in this row if this work was “started but completed” or “completed”</u>		What was the run of the gas line from the street to the building? Please mark the line on map.	What was the run of the gas line from the street to the building? Please mark the line on map.	
Replacement of the emergency generator				
Any other work				

4.1.27.8. Did the recertification repair work and/or planned recertification repair work involve any activity to fill cracks at the bottom or top of any of the slabs?

If YES, continue.

If NO, skip to Question 4.1.27.9.

4.1.27.8.1. Please provide as many details as possible on this repair work (e.g., when, what, where) *[the interviewer shows the relevant visuals here]*.

4.1.27.9. Were any observations made of the cracks at the bottom or top of the slabs over time?

If YES, continue.

If NO, skip to Question 4.1.27.10.

4.1.27.9.1.1. Please share as much information as possible about these observations.

4.1.27.10. How satisfied was the Board with the progress of the 40-year recertification work?

4.1.27.10.1. What aspects of the recertification work was the board satisfied with?

4.1.27.10.2. What aspects of the recertification work was the board not satisfied with?

4.1.27.11. How satisfied was the maintenance staff with the progress of the 40-year recertification work?

4.1.27.11.1. What aspects of the recertification work was the maintenance staff satisfied with?

4.1.27.11.2. What aspects of the recertification work was the maintenance staff not satisfied with?

4.1.27.12. How satisfied were CTS residents with the progress of the 40-year recertification work?

4.1.27.12.1. What aspects of the recertification work were the residents satisfied with?

4.1.27.12.2. What aspects of the recertification work were the residents not satisfied with?

4.1.27.13. Were there any factors that helped speed up the 40-year recertification work at CTS?

If YES, continue.

If NO, skip to Question 4.1.27.14.

4.1.27.13.1. Please tell us about what helped speed up the work (e.g., residents with expertise).

4.1.27.14. Were there any factors that slowed down the 40-year recertification work at CTS?

If YES, continue.

If NO, skip to Question 4.1.27.15.

4.1.27.14.1. Please tell us about the factors that slowed down the work (e.g., financing issues).

4.1.27.15. Were there plans to get (or had you already obtained) second opinions about the necessary repairs?

If YES, continue.

If NO, skip to 4.1.27.16.

4.1.27.15.1. Please explain, in detail, what was planned or done.

4.1.27.16. What were the Board's plans to pay for the work Morabito recommended (e.g., through special assessments, temporary loans)?

4.1.27.17. Does the Board or the entire membership have final authority to enact the special assessments??

4.1.27.18. Do you have any records from the time you were on the Board? If you do, can you please share those with us?

We would like to a few questions about the remodeling process at the CTS building next.

4.1.28. Please tell us about the remodeling process for unit owners at the CTS. What did they have to do to undertake a remodeling project in their units? Please explain the approval process step by step.

4.1.29. Did the Board require approval of remodeling projects by CTS owners?

If YES, continue.

If NO, skip to Question 4.1.30.

4.1.29.1. What were the criteria that the Board had for approval of remodeling projects?

4.1.29.2. Were the unit owners allowed to change finish materials on their units (e.g., floor and bathroom tiles) without the Association Board's approval? Y/N

4.1.29.3. How about repairs to balconies? Were unit owners allowed to conduct any repairs in their unit's balconies? Or were these repairs conducted by the Association only?

4.1.30. Are you aware of any repairs to the balcony slabs (balcony floors)?

If YES, continue.

If NO, skip to Question 4.1.31.

4.1.30.1. Please explain these repairs (e.g., what was done, why, where and when).

4.1.31. Are you aware of any guidance documents produced by the Association Board which detail what unit owners can and cannot do without their approval?

If YES, continue.

If NO, skip to Question 4.1.32.

4.1.31.1. Can you share a copy of these documents with us, if possible?

4.1.32. Do you recall significant remodeling of CTS units during your time on the Board, including installation of new stone floors, and addition or removal of partitions?

If YES, continue.

If NO, skip to Question 4.1.33.

4.1.32.1. Please tell us what you remember about these remodeling projects (e.g., what, when, and where).

Next, we have a few questions about your interactions as a Board member involving local government officials.

4.1.33. During your service, did local government officials perform any inspections in the building or visit the building?

If YES to either of them, continue.

If NO, skip to Question 4.1.34.

4.1.33.1. Please share, in detail, about these inspections and/or visits (e.g., their purpose, what they entailed, when and by whom they were conducted, who accompanied them).

4.1.33.2. What happened after these inspections and/or visits?

4.1.34. Did you have any other interactions with local government building officials with respect to the CTS building?

If YES, continue.

If NO, skip to the next section.

4.1.34.1. Please share, in detail, about these interactions (e.g., their purpose, what they entailed, when they were, who was involved).

SECTION 5. THE DAY BEFORE THE COLLAPSE (JUNE 23, 2021)

Now we will be asking you some questions about June 23, 2021, the day before the collapse.

5.1.1. Please walk us through what you did that day, starting from when you woke up (or “arrived at the building” for CTS staff) but before you noticed that something was wrong.

5.1.2. Just to confirm, you were at the CTS building on June 23, 2021_____ (e.g., from___ to ___ o'clock). Is that correct?

5.1.3. Did you notice anything unusual (e.g., sights, smells, motions, and sounds) about the building prior to the early morning of June 24, 2021?

If YES, continue.

If NO, skip to Question 5.1.4.

5.1.3.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

5.1.3.2. Here is a visual that might help [the interviewer shows the relevant visuals here]. Let us mark where you noticed these issues.

5.1.4. Please tell us if you were in the following sections of the building that day (June 23, 2021).

<i>Building Area</i>	<i>Answer (Y/N)</i>
Underground parking garage	Y/N
Pool deck	Y/N
Public areas on the first story of the building, including the recreation room, exercise room, saunas, the lobby, and the corridor	Y/N
Roof	Y/N
Collapsed section of the building	Y/N

If YES to any of the areas, continue.

If NO, skip to Question 5.1.5.

5.1.4.1. Please walk us through what you have seen at _____ (building area visited) that day, with as much detail as possible.

5.1.4.2. Did you notice anything unusual (e.g., sights, smells, motions, and sounds) at _____ (the building area visited) that day?

If YES, continue.

If NO, skip to Question 5.1.5.

5.1.4.2.1. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

5.1.4.2.2. Here is a visual that might help [*the interviewer shows the relevant visuals here*]. Let us mark where you noticed these issues.

5.1.5. Did you drive in and out of the underground parking garage on June 23, 2021, the day before the collapse?

If YES, continue.

If NO, skip to Question 5.1.6.

5.1.5.1. Please tell us where you parked that day (i.e., the parking spot #) to the best of your knowledge.

5.1.5.2. How did you park your car that day (e.g., head-in or back in parking)?

5.1.5.3. Here is a visual of the underground parking garage [*the interviewer shows the map of the garage*]. Please mark the path you took to park your car.

5.1.5.4. Let us also mark your walking path that day on this visual.

5.1.5.5. As you were walking through the garage, and entering the building, did you notice anything unusual (e.g., sights, smells, motions, and sounds)?

If YES, continue.

If NO, skip to Question 5.1.6.

5.1.5.6. Please explain what you noticed in as much detail as possible (e.g., what, when, and where).

5.1.5.7. Can we also mark the location of the issues you noticed on this map [*the interviewer shows the relevant visual*]?

5.1.6. Did you notice anything unusual (e.g., sights, smells, motions, and sounds) about your unit or any other unit prior to the early morning of June 24, 2021?

If YES, continue.

If NO, skip to Question 5.1.7.

5.1.6.1. Please explain what you noticed in detail (e.g., what, when, and where).

5.1.6.2. Here is a visual that might help [*the interviewer shows the relevant visuals here*]. Let us mark where you noticed these issues.

5.1.7. Is there anything else that stood out to you as different in the months, weeks, or days leading up to the collapse?

If YES, continue.

If NO, skip to the next section.

5.1.7.1. Please explain what was different in as much detail as possible [*the interviewer shows the relevant visuals as necessary*].

SECTION 6. THE DAY OF THE COLLAPSE (JUNE 24, 2021)

Now we would like you to think back to the night of the collapse and recall what happened that night. We are here to listen to you. Since the focus of the investigation is to understand how the building collapsed, we want you to share all the details you can think of with us, including sights, smells, motions, and sounds, even if they seem irrelevant to you. While discussing the details, we may be using post-it notes and visuals like maps, plans, and photos to better capture what you experienced on June 24, 2021.

As we get into this section, feel free to take your time. We can pause if needed. The information you provide is very important to help us understand what happened. May we proceed?

6.1.1. Let's start with the moment when you first noticed that something was not right that night. Take your time and describe your surroundings. It may be easier to do

that if you close your eyes [*the interviewer should also close his/her eyes to demonstrate*]. Think about your initial thoughts of noticing that something was not right.... [*the interviewer pauses here and in other places that are indicated in the script*] Think about any later thoughts.... Think about how you felt.... Think about any sounds you heard...Think about any odors you may have smelled...Think about what you saw.... Take your time and don't say anything yet. Just put yourself back into that earlier experience..... [*the interviewer takes an extended pause here*] Now tell us, in as much detail as possible, everything you remember about your initial experience of noticing that something was not right.

6.1.1.1. Can you describe what you heard?

6.1.1.2. Can you describe what you saw?

6.1.1.3. Can you describe what you physically felt (e.g., vibrations, unsteadiness)?

6.1.1.4. Can you describe what you smelled?

6.1.2. Where were you in the building when you first noticed that something was not right?

6.1.3. Here is a visual which might help us in our discussions. Can you please mark here where you were when you first noticed that something was not right? [*The interviewer shows the relevant visuals here, such as the floor plan, and puts "1" in the location where s/he first noticed that something was not right.*]

6.1.4. What time was it approximately when you first noticed that something was not right?

6.1.5. What did you think was happening at that moment?

6.1.5.1. What made you think that?

6.1.6. When you noticed that something was wrong, what did different areas of the building (i.e., the floor you were on, the pool deck, the underground parking garage, the collapsed section of the building) look like? Please explain in as much detail as possible.

6.1.6.1. Did you notice anything unusual about these areas (e.g., cracks, sagging, water, broken pipes, smell or sounds coming from these areas)?

If YES, continue.

If NO, skip to Question 6.1.7.

6.1.6.1.1. Please provide as much detail as possible about these (e.g., what, when, and where).

6.1.6.1.2. Can you please mark the location of where you noticed these issues here? [*The interviewer shows the relevant visuals here and asks the interviewee to add brief explanations on the visuals.*]

6.1.7. What did you experience or notice about the building next? Again, the details are extremely important here.

6.1.8. Can you please mark the location of where you noticed these issues here? [*The interviewer shows the relevant visuals here and continues to number (e.g., 2, 3) the location of these experiences.*]

6.1.9. Please describe to us in detail how different areas of the building (i.e., the floor you were on, the pool deck, the underground parking garage, the collapsed section of the building) looked like when you experienced or noticed this.

6.1.10. Did you notice anything unusual about these areas (e.g., movements, cracks, sagging, water, broken pipes, smells or sounds coming from these areas)?

If YES, continue.

If NO, skip to Question 6.1.11.

6.1.10.1. Please provide as much detail as possible about these (e.g., what, when, and where).

6.1.10.2. Can you please mark the location of where you noticed these issues here? *[The interviewer shows the relevant visuals here and asks the interviewee to add brief explanations on the visuals.]*

6.1.11. How about after that? Please explain what you experienced or noticed about the building in a chronological order until you evacuated to safety. Please explain in as much detail as possible.

6.1.12. Can you please mark the location of where you noticed these issues here? *[The interviewer shows the relevant visuals here and continues to number (e.g., 2, 3) the location of these experiences.]*

6.1.13. Please describe to us in detail how different areas of the building (i.e., the floor you were on, the pool deck, the underground parking garage, the collapsed section of the building) looked like when you experienced or noticed this.

6.1.14. Did you notice anything unusual about these areas (e.g., movements, cracks, sagging, water, broken pipes, smell or sounds coming from these areas)?

If YES, continue.

If NO, skip to Question 6.1.15.

6.1.14.1. Please provide as much detail as possible about these (e.g., what, when, and where).

6.1.14.2. Can you please mark the location of where you noticed these issues here? *[The interviewer shows the relevant visuals here and asks the interviewee to add brief explanations on the visuals.]*

6.1.15. We would like to write down the key events you mentioned while explaining how the collapse initiated and progressed on these post-it notes *[or on Zoom's Whiteboard for virtual interviews]* and then arrange them in a chronological order *[The interviewer helps the interviewee arrange the post-it notes to best capture his/her collapse initiation and progression experiences.]*

6.1.16. Can you please confirm that this is the correct order of your experiences that night? *[The interviewer takes a picture of the post-it notes once the interviewee confirms.]*

6.1.17. Did you see any of the following events as they were progressing that night?

Event	Answer
-------	--------

Collapse of the pool deck (not including the parking area at the lobby level near the south perimeter wall)	Y/N
Damage to the parking level near the south perimeter wall	Y/N
Damage to the tower (e.g., sinking, cracks)	Y/N
Collapse of the tower	Y/N
Other (please specify) _____	Y/N

If YES to any of them, continue.

If NO, skip to Question 6.1.18.

6.1.17.1. Please explain what you have seen in as much detail as possible (e.g., the direction of movements, where you were at that time, what you were able to see, and what time it was approximately).

6.1.17.2. Can you please mark the direction of movements here? *[The interviewer shows the relevant visuals here and asks the interviewee to mark the direction of movements and add brief explanations of these movements on the visuals.]*

6.1.18. Let's go over the initiation and progression of the collapse one more time since this is critical to our investigation. Which one of the following events do you think was experienced in the building first? Can you help us number these events, with 1 being the first event that was experienced and 4 being the last event experienced in terms of sequence. If you think some events were simultaneous, we can give them the same number. If you are not sure about the sequence of events, that is perfectly fine. Just let us know. Let's do this numbering together *[The interviewer fills in the second column].*

<i>Event</i>	<i>Collapse Sequence Order (1-4)</i>	<i>Personal Experience</i>
Collapse of the pool deck (not including the parking area at the lobby level near the south perimeter wall) (CP)		
Damage to the parking level near the south perimeter wall (DP)		
Damage to the tower (e.g., cracks, sinking of the building) (DT in short) <i>[ask only to the residents of the collapsed section]</i>		
Collapse of the tower (CT in short)		
Other (please specify) _____		

6.1.19. Can you please tell us more about the basis for marking of this sequence?

6.1.20. Now let's revisit what you think you experienced at the time of each event (e.g., sinking, swaying) [*The interviewer fills in the third column*].

The interviewer adds the event abbreviations (e.g., CP, DP, DT, CT) to the visual prepared earlier based on the experiences of the interviewee.

6.1.21. We also would like to ask you what you recall from your conversations with others about what they might have experienced at the time of each event (e.g., sinking, swaying).

Ask Questions 6.1.22-6.1.23 only if the person was in the collapsed section of the building during the collapse.

We also would like to ask you a few specific questions about what you observed in the collapsed section of the building that night.

6.1.22. Please tell us if you observed any of the following in the collapsed section of the building prior to the damage observed in the pool deck area.

<i>Type of Observation</i>	<i>Answer</i>
Visual damage (e.g., crack, sagging, broken pipes)	Y/N
Movement (e.g., sinking feeling, horizontal or vertical movement, movement towards East, West, North or South, clockwise or counterclockwise movement, vibrations, shaking)	Y/N
Unusual sounds	Y/N
Unusual smell	Y/N

If YES to any of them, continue.

If NO, skip to Question 6.1.23.

6.1.22.1. Please explain the conditions you observed in as much detail as possible (e.g., what, when---the exact timing or approximately how long before the condition was observed in the pool deck area—, and where).

6.1.22.2. Can you please mark the location of these conditions here? [The interviewer shows the relevant visuals here and asks the interviewee to add brief explanations on the visuals.]

6.1.23. What else did you experience the night of the collapse that we haven't yet covered? Please feel free to share.

Thank you so much for sharing your story. We really appreciate your detailed accounts of this emotional event.

SECTION 7. EVACUATION EXPERIENCE

Our next discussion will focus on how you evacuated the building. Again, the details are important here so we can make specific recommendations to facilitate the evacuation process. We understand that it may be difficult to remember specifics. Feel free to take your time and tell us if you are not sure of something. That is perfectly fine. For instance, you can say I THINK I heard an alarm while taking the stairs, but I'm not sure.

7.1.1. Please tell us about the time when you first realized that the tower part of the building was collapsing or that it had collapsed already, in as much detail as possible.

7.1.2. What made you think that the building was collapsing?

7.1.3. When did you decide it was time to leave your unit or the building?

- 7.1.3.1. What made you decide that (e.g., visual damage, shaking, someone warning you to evacuate, the alarm)?
- 7.1.4. Please tell us about how you evacuated the building in as much detail as possible. (e.g., when, with whom, the route taken).
- 7.1.5. What affected your decision to take that route?
- 7.1.6. What affected your decision to take those emergency exits?
- 7.1.7. What affected your decision to take (or not to take) the elevator?
- 7.1.8. What affected your decision to take (or not to take) cover?
- 7.1.9. Let us mark the route of your evacuation here [*The interviewer shows the relevant visuals as the discussion proceeds and asks the interviewee to add explanatory notes on the visuals as necessary.*]
- 7.1.10. First, let's indicate your location when you first noticed that something was wrong. We numbered this location as "1" on one of our earlier maps. Then let's put "DE" in the location where you first decided to evacuate.
- 7.1.11. Now, let's put the following on the visuals: the emergency exit you took [the interviewee marks it as XT], the emergency exits you have considered but not took [the interviewee marks it as XC], the place where you might have taken cover [the interviewee marks it as TC], and the place where you exited the building [the interviewee marks it as XB].
- 7.1.12. Was there anything that you think hindered your evacuation process (e.g., debris, lighting, locked doors, building design, potential hazards encountered such as smoke, fire, water)? Here we would like you to think about both your self-evacuation and/or rescue by first responders.
- If YES, continue.*
- If NO, skip to Question 7.1.13.*
- 7.1.12.1. Please tell us what you think hindered your evacuation process.
- 7.1.13. Was there anything that you think facilitated your evacuation process (e.g., sound of the alarm; communication with neighbors, relatives, friends, and staff; formal communication with authorities; earlier drills; evacuation plan; first responders)? Again, we would like you to think about both your self-evacuation and/or rescue by first responders.
- If YES, continue.*
- If NO, skip to Question 7.1.14.*
- 7.1.13.1. Please tell us what you think facilitated your evacuation process.
- 7.1.14. Approximately how long did it take for you to evacuate the building on your own that night?
- 7.1.15. Approximately how long did it take for you to be rescued by first responders that night?
- 7.1.16. What were your experiences with the alarm system that night? Please share as many details as possible (e.g., what, when, and where).
- 7.1.17. Please tell us about the moment when you first started to feel "safe".

- 7.1.18. Now, let's add the location of when you first started to feel "safe" on our visuals [the interviewee shows the relevant visual and marks it as FS].
- 7.1.19. Approximately how long after the CTS building's collapse did you feel this way?
- 7.1.20. What helped you feel safe that night (e.g., being away from the collapse site, presence of first responders, neighbors, relatives and friends?)

SECTION 8. STAKEHOLDER FEEDBACK ON BUILDING EVACUATION, SEARCH AND RESCUE

Now we will be asking questions about your perspectives on evacuation, search and rescue efforts after the collapse of the CTS building.

- 8.1.1. Please share with us your perspective on evacuation of CTS residents and visitors that night.
- 8.1.1.1. What aspects of evacuation efforts went well?
- 8.1.1.2. What were the challenges CTS residents and visitors had while evacuating on their own?
- 8.1.1.2.1. To your knowledge, how did CTS residents and visitors manage these challenges?
- 8.1.1.3. What were the challenges CTS residents and visitors had while evacuation efforts by first responders were underway?
- 8.1.1.3.1. To your knowledge, how did CTS residents and visitors manage these challenges?
- 8.1.1.4. What would be your recommendations to enhance evacuation efforts like the one you experienced/witnessed in the CTS building?
- 8.1.2. Please share your perspectives with us on the CTS search and rescue efforts.
- 8.1.2.1. What aspects of search and rescue efforts went well?
- 8.1.2.2. What were the challenges faced while search and rescue efforts were underway?
- 8.1.2.3. How were these challenges dealt with?
- 8.1.3. Did you have a chance to observe or interact with international search and rescue teams that were deployed to the site?
- If YES, continue.*
- If NO, skip to Question 8.1.4.*
- 8.1.3.1. Please share your observations on these search and rescue teams.
- 8.1.4. What might be helpful about responding to events of this nature in the future?

Thank you so much for sharing your story. We really appreciate your detailed accounts of this emotional event.

SECTION 9. INFORMATION SHARING AND SEEKING ON THE COLLAPSE

Now we would like to have a conversation about the information you have received and shared after the collapse of CTS.

- 9.1.1. In the initial few hours after the collapse, as you were trying to make sense of unfolding events, what information did you receive about what was happening?
 - 9.1.1.1. When was this information shared with you?
 - 9.1.1.2. Who shared this information with you?
 - 9.1.1.3. How was this information shared with you (e.g., via phone, text, phone call or a press conference)?
- 9.1.2. What aspects of the information you received in the first few hours after the collapse were helpful?
- 9.1.3. What aspects of the information you received in the first few hours after the collapse were confusing?
- 9.1.4. How did you deal with the information that was confusing in the first few hours after the collapse?
 - 9.1.4.1. Did you seek information from additional sources during this time?

If YES, continue.

If NO, skip to Question 9.1.5.

- 9.1.4.1.1. What type of information did you seek during this time?
 - 9.1.4.1.2. Who did you seek information from (e.g., social media, news reporters, CTS residents, government officials)?
- 9.1.5. Did you share any information (e.g., videos, photos) with first responders or others on the day of the collapse?

If YES, Continue.

If NO, Skip to the next section.

- 9.1.5.1. What was that information?
 - 9.1.5.2. Would it be possible for us to have a copy of this information?
- 9.1.6. From your perspective, what lesson(s) from this experience can you share regarding how you received or transmitted information during the initial few hours of a building collapse?

SECTION 10. STAKEHOLDER FEEDBACK ON THE GOVERNMENT'S RESPONSE TO THE COLLAPSE

We now would like to hear from you on the government's role in responding to and preventing calamities like the collapse of the CTS building.

- 10.1.1. We would love to hear your perspectives on the government's response to the collapse of the CTS building.

- 10.1.1.1. What aspects of the government's response to the collapse of the CTS building worked well?
- 10.1.1.2. What were the main challenges _____ [*the interviewer mentions the relevant stakeholder group here*] faced during the response to the collapse of the CTS building?
- 10.1.1.3. How did _____ [*the interviewer mentions the relevant stakeholder group here*] deal with these challenges?
- 10.1.1.4. What might be helpful in terms of addressing the challenges faced during response to a building failure of a similar nature?

Depending on the interviewee's background, ask about different aspects of response such as evacuation, search and rescue.

- 10.1.2. What are your recommendations for federal, state and local governments on how to respond to events of this nature in the future?
- 10.1.3. In your opinion, how can the government (at federal, state and local levels) help prevent future calamities such as the one witnessed in Surfside?

We would love to have your feedback on NIST as well.

- 10.1.4. Is there anything else that you think we should study further? Or any other questions we should be focusing on?
- 10.1.5. How could NIST's engineers and other technical experts help _____ [*the interviewer uses the relevant stakeholder group here*]?
- 10.1.5.1. What kind of information from NIST might be helpful for _____ [*the interviewer uses the relevant stakeholder group here*]?
- 10.1.5.2. How do you think NIST should share information with _____ [*the interviewer uses the relevant stakeholder group here*]?

SECTION 11. WRAP UP & FUTURE STEPS

- 11.1.1. Is there anything we have not yet discussed but is important for us to know about?
- 11.1.2. We welcome submissions of data including photos, video and other documentation associated with collapse of CTS. Do you have any additional photos, videos, or other information (e.g., field notes) that you would like to share with us?
- 11.1.3. Do you have _____ about the following [*the interviewer may ask about specific materials*]?

If YES, continue.

If NO, wrap up the interview.

- 11.1.3.1. Would you be able to share these with us? Y/N

Those are all the questions we have. The valuable information you provided will help our engineers and scientists improve building safety. Thank you so much for taking the time to talk with us.

After the formal interview ends, you may remember new details or notice new things about the issues we discussed today. Please feel free to reach out back to us to share that information. We are eager to continue this conversation with you.