APPENDIX E. TASK PROTOCOLS

TASK A PROTOCOL

1. Read the following:

   "This structure, constructed in 1940, is Bridge B521 over the decommissioned section of the Pennsylvania Turnpike. What you will be asked to do during this task is to perform a Routine Inspection of the superstructure, the substructure, and the deck (excluding the wearing surface). To refresh your memory, Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge. Routine Inspections also serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are commonly referred to as normal NBIS inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed yesterday in mind while you complete this inspection. Do you have any questions about any of these safety issues?

   My role while you complete this inspection will be to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. Do you have any questions about what my role will be?

   These are the forms you are to use while completing the inspection. Note that there is room for you to make notes . If you do make some notes, I ask that you keep them as brief as possible. Please note that these are generic forms used for a wide variety of bridges. You should use only those items appropriate to your inspection of this bridge. Please note the prepared bridge plans included in the forms. I ask that when you find something that you would normally note, please indicate its location on the plans and record any measurements you made. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms?"

2. Give Task A pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 40 minutes to complete the Routine Inspection of the deck, excluding the wearing surface, superstructure, and substructure of this bridge. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform a Routine Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. In this light, I

would ask that if you would normally have done some sort of invasive procedure had we not prohibited it, please make a brief note indicating the procedure and location. For the purposes of this inspection, you do not need to make gross dimension checks or inspect non-structural elements like the approach rail. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 40 minutes).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task A post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK B PROTOCOL

1. Read the following:

   "This structure, constructed in 1939, is Bridge B101A over an unmarked gravel access road. What you will be asked to do during this task is to perform a Routine Inspection of the deck, superstructure, and substructure of this bridge. To refresh your memory, Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge. Routine Inspections also serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are commonly referred to as normal NBIS inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed yesterday in mind while you complete this inspection. Do you have any questions about any of these safety issues?

   My role while you complete this inspection will be to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. Do you have any questions about what my role will be?

   These are the forms you are to use while completing the inspection. Note that there is room for you to make notes if you wish. If you do make some notes, I ask that you keep them as brief as possible. Please note that these are generic forms used for a wide variety of bridges. You should use only those items appropriate to your inspection of this bridge. Please note the prepared bridge plans included in the forms. I ask that when you find something that you would normally note, please indicate its location on these plans and record any measurements you made. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms?"

2 Give Task B pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 50 minutes to complete the Routine Inspection of the deck, superstructure, and substructure of this bridge. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform a Routine Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. In this light, I would also ask that if you would normally have done some sort of invasive procedure had we not prohibited

it, please make a brief note indicating the procedure and location. For the purposes of this inspection, you do not need to make gross dimension checks or inspect non-structural elements like the approach rail. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 50 minutes).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task B post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK C PROTOCOL

1. Read the following:

   "This structure, constructed in 1939, is Bridge B111A over State Route 1011. What you will be asked to do during this task is to perform a Routine Inspection of the deck, superstructure, and substructure of this bridge. To refresh your memory, Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge. Routine Inspections also serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are commonly referred to as normal NBIS inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed yesterday in mind while you complete this inspection. Do you have any questions about any of these safety issues?

   My role while you complete this inspection will be to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. Do you have any questions about what my role will be?

   These are the forms you are allowed to use while completing the inspection. Note that there is room for you to make notes. If you do make some notes, I ask that you keep them as brief as possible. Please note that these are generic forms used for a wide variety of bridges. You should use only those items appropriate to your inspection of this bridge. Please note the prepared bridge plans included in the forms. I ask that when you find something that you would normally note, please indicate its location on these plans and record any measurements you made. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms?"

2. Give Task C pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 30 minutes to complete the Routine Inspection of the deck, superstructure, and substructure of this bridge. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform a Routine Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. In light of this, I would ask that if you would normally have done some sort of invasive procedure had we not prohibited it,

please make a brief note indicating the procedure and location. For the purposes of this inspection, you do not need to make gross dimension checks or inspect non-structural elements like the approach rail. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 30 minutes).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task C post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK D PROTOCOL

1. Read the following:

   "This structure, constructed in 1939, is Bridge B543 over a decommissioned Turnpike ramp. What you will be asked to do during this task is to perform a Routine Inspection of the deck, superstructure, and the substructure of this bridge. To refresh your memory, Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge. Routine Inspections also serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are commonly referred to as normal NBIS inspections. I want to take this time to assure you that all of your inspection findings and my observations are strictly confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed yesterday in mind while you complete this inspection. Do you have any questions about any of these safety issues?

   My role while you complete this inspection will be to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. Do you have any questions about what my role will be?

   These are the forms you are to use while completing the inspection. Note that there is room for you to make notes. If you do make some notes, I ask that you keep them as brief as possible. Please note that these are generic forms used for a wide variety of bridges. You should use only those items appropriate to your inspection of this bridge. Please note the prepared bridge plans included in the forms. I ask that when you find something that you would normally note, please indicate its location on these plans and record any measurements you made. Additionally, please use this digital camera to record your findings. If you have any questions about the use of this camera, please feel free to ask me at any time. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms?"

2. Give Task D pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 40 minutes to complete the Routine Inspection of the deck, superstructure, and substructure of this bridge. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform a Routine Inspection. However, please keep in mind that you must not damage the bridge in any way

so that we can preserve its current state for other inspectors. In this light, I would also ask that if you would normally have done some sort of invasive procedure had we not prohibited it, please make a brief note indicating the procedure and location. For the purposes of this inspection, you do not need to make gross dimension checks or inspect non-structural elements like the approach rail. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 40 minutes).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task D post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK E PROTOCOL

1. Read the following:

   "This structure, constructed in 1939, is Bridge B544 over U.S. Route 30. What you will be asked to do during this task is to perform a Routine Inspection of the deck, superstructure, and substructure of this bridge. To refresh your memory, Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge. Routine Inspections also serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are commonly referred to as normal NBIS inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed yesterday in mind while you complete this inspection. Do you have any questions about any of these safety issues?

   My role while you complete this inspection will be to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. Do you have any questions about what my role will be?

   These are the forms you are to use while completing the inspection. Note that there is room for you to make notes. If you do make some notes, I ask that you keep them as brief as possible. Please note that these are generic forms used for a wide variety of bridges. You should use only those items appropriate to your inspection of this bridge. Please note the prepared bridge plans included in the forms. I ask that when you find something that you would normally note, please indicate its location on the plans and record any measurements you made. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms?"

2. Give Task E pre-task questionnaire exactly as it is given in the Palm Pilot.

3. Read the following:

   "We will now begin this inspection task. You have 1 hour to complete the Routine Inspection of the deck, superstructure, and substructure of this bridge. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform a Routine Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. In this light, I would ask that if

you would normally have done some sort of invasive procedure had we not prohibited it, please make a brief note indicating the procedure and location. For the purposes of this inspection, you do not need to make gross dimension checks or inspect non-structural elements like the approach rail. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 1 hour).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task E post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK F PROTOCOL

1. Read the following:

   "This structure, constructed in 1939, is Bridge B544 over U.S. Route 30. What you will be asked to do during this task is to perform an In-Depth Inspection of approximately one-third of the below-deck superstructure of this bridge. To refresh your memory, In-Depth Inspections are close-up, hands-on inspections of one or more members in order to identify deficiencies not normally detectable during Routine Inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed yesterday in mind while you complete this inspection. The most important safety item concerns the use of this 12.19-m boom lift. OSHA requirements mandate that we both wear safety harnesses and tie-off lanyards whenever the boom is in operation. If needed, we will maintain 100 percent tie-off by using additional lanyards. Do you have any questions about the use of fall protection or any other safety issues?

   My role while you complete this inspection will be twofold. First, to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. My second main role will be to operate all controls while we are using the boom lift. Do you have any questions about what my role will be?

   These are the forms you are to use while completing the inspection. Note that there is room for you to make notes. If you do make some notes, I ask that you keep them as brief as possible. Please note the prepared bridge plans included in these forms. I ask that when you find something that you would normally note, please indicate its location on the plans and record any measurements you made. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms or how you are to record your findings?"

2. Give Task F pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 3 hours to complete the In-Depth Inspection of the superstructure of the SW quarter of the bridge to the indicator marks using the boom lift and the NE section of the bridge using the 9.75-m ladder out to the first set of sway frames. The time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you

would typically perform an In-Depth Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. In this light, I would ask that if you would normally have done some sort of invasive procedure had we not prohibited it, please make a brief note indicating the procedure and location. For the purposes of this inspection, you do not need to make gross dimension checks. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 3 hours).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task F post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK G PROTOCOL

1. Read the following:

   "This structure, constructed in 1975, is the Route 1 bridge over the Occoquan River. What you will be asked to do during this task is to perform a Routine Inspection of a portion of the deck, superstructure, and substructure of the southern half of this bridge. To refresh your memory, Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge. Routine Inspections also serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are commonly referred to as normal NBIS inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this task?

   Please keep the safety provisions we discussed 2 days ago in mind while you complete this inspection. Do you have any questions about any of these safety issues?

   My role while you complete this inspection will be to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. Do you have any questions about what my role will be?

   These are the forms you are to use while completing the inspection. Note that there is room for you to make notes. If you do make some notes, I ask that you keep them as brief as possible. Please note that these are generic forms used for a wide variety of bridges. You should use only those items appropriate to your inspection of this bridge. Please note the prepared bridge plans included in the forms. I ask that when you find something that you would normally note, please indicate its location on these plans and record any measurements you made. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms?"

2. Give Task G pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 2 hours to complete the Routine Inspection of a portion of the deck, superstructure, and substructure of the southern four spans of this bridge. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform a Routine Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. In this light, I would ask that if you would normally have done some sort of

invasive procedure had we not prohibited it, please make a brief note indicating the procedure and location. For the purposes of this inspection, you do not need to make gross dimension checks or determine underwater stream profiles. When inspecting the top side of the deck, you must remain behind the guardrail at all times. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 2 hours).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task G post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK H PROTOCOL

1. Read the following:

   "This structure, constructed in 1975, is the Route 1 bridge over the Occoquan River. What you will be asked to do during this task is to perform an In-Depth Inspection of one bay of one span of this bridge, excluding the bearings. As I mentioned, you will be asked to perform an In-Depth Inspection. To refresh your memory, In-Depth Inspections are close-up, hands-on inspections of one or more members in order to identify deficiencies not normally detectable during Routine Inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed 2 days ago in mind while you complete this inspection. The most important safety item you need to recall concerns the use of this 18.28-m boom lift. OSHA requirements mandate that we both wear safety harnesses and tie-off lanyards whenever the boom is in operation. If needed, we will maintain 100 percent tie-off by using additional lanyards. Do you have any questions about the use of the boom lift or any other safety issues?

   My role while you complete this inspection will be twofold. First, to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. My second main role will be to operate all controls while we are using the lift. Do you have any questions about what my role will be?

   These are the forms you are to use while completing the inspection. Note that there is room for you to make notes. If you do make some notes, I ask that you keep them as brief as possible. Please note the prepared bridge plans included in the forms. I ask that when you find something that you would normally note, please indicate its location on these plans and record any measurements you made. I want to let you know that you should not feel obligated to spend a great deal of time at any one location. Please just simply note your findings and move on. Do you have any questions about these forms or how you are to record your findings?"

2. Give Task H pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 2 hours to complete the In-Depth Inspection of the easternmost bay of this span, excluding the bearings. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform an In-Depth

Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. In this light, I would ask that if you would normally have done some sort of invasive procedure had we not prohibited it, please make a brief note indicating the procedure and location. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 2 hours).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task H post-task questionnaire.

8. Read the following"

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

TASK I PROTOCOL

1. Read the following:

   "This structure, constructed around 1960, is the Van Buren Road Bridge over the Quantico Creek. What you will be asked to do during this task is to perform a Routine Inspection of the southern two spans of this bridge. You should recall that we sent you a packet of information about this bridge with instructions to prepare to do this inspection as you normally would. This was to include all required data sheets and a "plan of attack" for completing a Routine Inspection of this structure. To refresh your memory, Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge. Routine Inspections also serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are commonly referred to as normal NBIS inspections. I want to take this time to remind you that all of your inspection findings and my observations will be confidential. Do you have any general questions about this inspection?

   Please keep the safety provisions we discussed yesterday in mind while you complete this inspection. Do you have any questions about any of these safety issues?

   My role while you complete this inspection will be to simply observe and jot down some simple notes about what you are doing. I will not be assisting you as you complete this inspection. I want to also assure you that I am not scoring or grading you. I am simply taking notes about how and what you are doing. If you have any questions while you are completing the task, please feel free to ask me. If I am allowed to answer the question, I will be happy to do so. Do you have any questions about what my role will be?

   You are to only use the forms that you prepared in advance.

   Do you have any questions about what I am expecting?"

2. Give Task I pre-task questionnaire.

3. Read the following:

   "We will now begin this inspection task. You have 2 hours to complete the Routine Inspection of the deck, superstructure, and substructure of the southern two spans of this bridge. This time limit has been developed from inspectors around the country. Although I must ask that you attempt to complete this task within the time allotted, you should also keep in mind the fact that this is not a race. Please perform this inspection as you would typically perform a Routine Inspection. However, please keep in mind that you must not damage the bridge in any way so that we can preserve its current state for other inspectors. For the purposes of this inspection, you do not need to determine underwater stream profiles or inspect non-structural elements like the approach rail. Do you have any questions? Let's begin."

4. Start the clock in the Palm Pilot (set for 2 hours).

5. Complete the during-task observation form.

6. If time runs out, ask the Inspector to stop, and make a note of where the inspector stopped.

7. Give the Task I post-task questionnaire.

8. Read the following:

   "Thank you for completing this inspection task. Your findings and your inspection procedures will be useful in assessing how bridge inspections are typically completed. Do you have any questions about the task you just completed?"

APPENDIX F. SELF-REPORT QUESTIONNAIRES

SELF-REPORT QUESTIONNAIRE

Inspector ID: _____

Please note that all questions are voluntary. Additionally, note that, all answers are strictly confidential.

1. Age: _____
   Height: _____
   Weight: _____

2. How would you describe your general physical condition?

Poor	Below Average	Average	Above Average	Superior
1	2	3	4	5

3. Do you currently have any orthopedic ailments (e.g. bad knees, bad back)?
   Yes **No**

   If so, list: _____

4. Are you currently experiencing any temporary physical ailments (e.g. flu, head cold, etc.)?
   Yes **No**

   If so, list: _____

5. How would you describe your general mental condition?

Poor	Below Average	Average	Above Average	Superior
1	2	3	4	5

6. Are you currently experiencing additional stress due to personal problems (e.g. death in family, etc.)?
   Yes **No**

7. Overall today, how do you feel?

Poor	Below Average	Average	Above Average	Superior
1	2	3	4	5

8. During an average bridge inspection, do you ever feel so tired or winded that you have to work slower or temporarily stop working?

Never	Very Rarely	Sometimes	Often	Almost Always
1	2	3	4	5

   If so, under what conditions and how often: _____
   _____

9. Do you feel your work as a bridge inspector is important to public safety?

Not at all	Slightly Important	Important	Very Important	Essential
1	2	3	4	5

10. Do you ever assess the importance to public safety of the inspection that you are performing?

Yes **No**

11. In general, how would you describe your level of mental focus over an entire bridge inspection?

Poor	Slightly Unfocused	Average	Somewhat Focused	Very Focused
1	2	3	4	5

12. How interesting is your work as a bridge inspector?

Very Boring	Boring	Average	Somewhat Interesting	Very Interesting
1	2	3	4	5

13. Imagine the following situation:

    You are inspecting the superstructure of a steel girder/concrete deck bridge. The bridge is 60 ft high and the only means of access to the girders is from a snooper truck and the wind is gusting to 20 mph.

    How fearful of the working height do you feel you would be?

Very Fearful	Somewhat Fearful	Mostly Fearless	No Fear
1	2	3	4

14. Imagine the following situation:

    You are inspecting the interior of a 150-ft-long prestressed concrete box girder. The only light source is your flashlight. Traffic on the bridge continues uninterrupted and you can feel every passing vehicle.

    How fearful of working in this enclosed space would you be?

Very Fearful	Somewhat Fearful	Mostly Fearless	No Fear
1	2	3	4

15. Imagine the following situations:

    You are completing an In-Depth Inspection of a major two-lane divided highway bridge. Only one lane can be closed at a time. Most of your time is spent kneeling at deck level to inspect the deck.

    How fearful of the vehicular traffic do you feel you would be?

Very Fearful	Somewhat Fearful	Mostly Fearless	No Fear
1	2	3	4

16. Have you ever been involved in an accident where you as a pedestrian were struck by a moving vehicle?

Yes **No**

17. Have you ever been involved in an accident where you fell from typical bridge inspection working heights?

Yes **No**

18. What is the highest educational level that you have completed?

_____ Some High School
_____ High School Degree or equivalent
_____ Some Trade School
_____ Trade School Degree
_____ Some College

_____ Associate's Degree	*Choose one*	*CE Technology*	*Other*
_____ Bachelor's Degree	*Choose one*	*Civil Engineering*	*Other*
_____ Some Graduate Work	*Choose one*	*Civil Engineering*	*Other*
_____ Master's Degree	*Choose one*	*Civil Engineering*	*Other*
_____ Terminal Degree (e.g., Ph.D.)	*Choose one*	*Civil Engineering*	*Other*

_____ Other: _____

19. What specific type of training have you had in bridge inspection? *(you may check more than one)*

State Training

_____ In-house state-run bridge inspection training program.
_____ Apprentice training on the job by experienced inspectors.
_____ Other: _____

FHWA Training

_____ Bridge Inspector's Training Course Part I – Engineering Concepts for Bridge Inspectors (NHI #13054)
_____ Bridge Inspector's Training Course Part II – Safety Inspection of In-Service Bridges (NHI #13055)
_____ Inspection of Fracture Critical Bridge Members Training Course
_____ Bridge Inspector's Training Course Refresher Training
_____ Nondestructive Testing Methods for Steel Bridges
_____ Culvert Design (NHI #13056)
_____ Other: _____

Other: _____
_____
_____

20. How many years of experience do you have in bridge inspection? _____

21. How many years of experience do you have in highway structures? _____

22. Have you ever worked as an inspector in another industry (e.g., aircraft, nuclear power, etc.)?
    Yes **No**

23. How many more years do you expect to be performing bridge inspection before you move to another job or retire? _____

24. Is your organization's bridge inspection philosophy more similar to a) or b)?
    _____ a) Provide an adequate inspection with the goal being to comply with NBIS.
    _____ b) Provide a thorough inspection with the goal being to find all defects.

25. How do you mentally prepare to complete a typical bridge inspection? *(you may check more than one)*
    _____ Study previous inspection reports for the particular bridge.
    _____ Study cases of similar bridges for help in determining probable places to look for defects.
    _____ Mentally recall similar bridges you have inspected.
    _____ No preparation.

26. In general, do your supervisors: (check only **one**)
    _____ a) Provide you with a detailed checklist of items to inspect while at the bridge site?
    _____ b) Provide loose guidelines for the inspection but leave the exact process up to you?
    _____ c) Allow you to inspect the bridge using solely your own techniques, skills, and knowledge of the bridge inspection process?

27. How would you describe your relationship with your direct superior?

Very Poor	Poor	Average	Good	Very Good
1	2	3	4	5

28. Do you feel that management feels that the work you do is important?

Not at all	Slightly Important	Important	Very Important	Essential
1	2	3	4	5

29. Within your duties for the State DOT, do you perform any work other than bridge inspection (i.e. construction inspection, etc.)? If so, what percentage of your time is spent at each activity?

    Activity: Bridge Inspection % of time: _____
    Activity: _____ % of time: _____
    Activity: _____ % of time: _____
    Activity: _____ % of time: _____

30. Given the following two definitions:

    - Routine Inspection—Routine Inspections are regularly scheduled inspections completed to determine the physical and functional condition of a bridge and to identify changes from the last inspection. Further, Routine Inspections serve to ensure that a bridge continues to satisfy all applicable serviceability requirements. Routine Inspections are also commonly known as NBI inspections.
    - In-Depth Inspection—In-Depth Inspections are close-up, hands-on inspections of one or more bridge members in order to identify deficiencies not normally detectable during Routine Inspections.

    What percentage of your inspection duties could be classified as Routine Inspections?
    _____

    What percentage of your inspection duties could be classified as In-Depth Inspections?
    _____

31. For the following hypothetical bridge, how many people would make-up a field inspection team (excluding traffic control personnel), and how much time (in man-hours) would be budgeted?

    Twenty-year-old, two-span bridge carrying two-lane road (medium ADT) over a small creek, maximum height above the creek is 20 ft.

    Superstructure: Steel, four-girder superstructure (rolled shapes); welded flange cover plates; concrete deck.

    Substructure: Concrete abutments, a single three-column concrete pier (with pier cap) out of the normal watercourse.

    People: _____
    Man-hours: _____

32. Estimate the percentage of bridge inspections completed with a registered Professional Engineer (PE) on-site? *(circle one)*

    0-20 20-40 40-60 60-80 80-100

33. Do you currently take any of the following substances?

    Bilberry
    Viagra
    B vitamin complex

    Yes No

34. In comparison to other bridge inspectors, how would you classify yourself based on your past performance?

Poor	Below average	Average	Above average	Excellent
1	2	3	4	5

35. If it was under your control, how do you think that bridge inspections could be improved?

_____
_____
_____

36. Have you ever seen a bridge failure in person?

Yes **No**

If yes, please describe:

_____
_____
_____

37. What time zone do you normally work in?

_____

38. Approximately how many bridges do you inspect each year?

_____

39. Briefly describe how you became a bridge inspector?

_____
_____
_____

40. Within your organization how important do you feel bridge inspection is?

Not Important	Slightly Important	Average	Somewhat Important	Very Important
1	2	3	4	5

EXIT SELF-REPORT QUESTIONNAIRE

Inspector ID: _____

Please note that all questions are voluntary. Additionally, note that, all answers are strictly confidential.

1. Age: _____
   Height: _____
   Weight: _____

2. How would you describe your general physical condition?

Poor	Below Average	Average	Above Average	Excellent
1	2	3	4	5

3. Do you currently have any orthopedic ailments (e.g. bad knees, bad back)?
   Yes **No**

   If so, list: _____

4. Are you currently experiencing any temporary physical ailments (e.g. flu, head cold, etc.)?
   Yes **No**

   If so, list: _____

5. How would you describe your general mental condition?

Poor	Below Average	Average	Above Average	Excellent
1	2	3	4	5

6. Overall, how do you feel today?

Poor	Below Average	Average	Above Average	Excellent
1	2	3	4	5

7. During an average bridge inspection, do you ever feel so tired or winded that you have to work slower or temporarily stop working?

Never	Very Rarely	Sometimes	Often	Almost Always
1	2	3	4	5

   If so, under what conditions and how often: _____
   _____

8. Do you feel your work as a bridge inspector is important to public safety?

Not at all	Slightly Important	Important	Very Important	Essential
1	2	3	4	5

9. In general, how would you describe your level of mental focus over an entire bridge inspection?

Poor	Slightly Unfocused	Average	Somewhat Focused	Very Focused
1	2	3	4	5

10. How interesting is your work as a bridge inspector?

Very Boring	Boring	Average	Somewhat Interesting	Very Interesting
1	2	3	4	5

11. How many more years do you expect to be performing bridge inspection before you move to another job or retire? _____

12. Is your organization's bridge inspection philosophy more similar to a) or b)?
    _____ a) Provide an adequate inspection with the goal being to comply with NBIS.
    _____ b) Provide a thorough inspection with the goal being to find all defects.

13. How would you describe your relationship with your direct superior?

Very Poor	Poor	Average	Good	Very Good
1	2	3	4	5

14. Do you feel that management feels that the work you do is important?

Not at all	Slightly Important	Important	Very Important	Essential
1	2	3	4	5

15. Do you currently take any of the following substances?

    Bilberry
    Viagra
    B vitamin complex

    Yes **No**

16. In comparison to other bridge inspectors, how would you classify yourself based on your past performance?

Poor	Below average	Average	Above average	Excellent
1	2	3	4	5

17. If it was under your control, how do you think that bridge inspections could be improved?
    _____
    _____
    _____

18. Have you ever seen a bridge failure in person?
Yes **No**

If yes, please describe:

_____
_____
_____

19. Approximately how many bridges do you inspect each year?

_____

20. Briefly describe how you became a bridge inspector.

_____
_____
_____

21. Within your organization, how important do you feel bridge inspection is?

Not Important	Slightly Important	Average	Somewhat Important	Very Important
1	2	3	4	5

22. Did you enjoy participating in these inspection tasks?

Yes **No**

23. Do you feel that the observers did a good job?

Yes **No**

24. On a scale from one to ten, what rating would you give the observers (1 = poor, 10 = excellent)?

_____

APPENDIX G. INSPECTOR CHARACTERIZATION PROTOCOLS

PROTOCOL FOR THE ADMINISTRATION OF THE SELF-REPORT QUESTIONNAIRE

The following will outline the standard protocol that must be followed during the administration of the self-report questionnaire:

1. Observer reads the following:

   "I am now going to ask you to complete a self-report questionnaire. Before we go any further, I would like to assure you that all answers provided on this questionnaire are strictly confidential. As you can see, the answers provided in this questionnaire can only be identified by an inspector ID number. This ID number will not be linked to you or to your inspection agency in any way. With this strict confidentiality in mind, I ask that you answer all questions as honestly as you can. If, however, you feel that a question is too personal for you to answer or you simply don't want to answer the question, feel free to skip it and go on to the next one. Before we go any further, do you have any questions about anything I have said so far?"

2. Observer reads the following:

   "The survey has been developed to assess the general condition of inspectors. Additionally, this survey will give us some insight into your views on the specific operation of your inspection agency. Please take your time filling out this survey and feel free to ask me any questions that you may have. When I can, I will answer them as best I can. Again, let me remind you that all information that you provide is strictly confidential and all questions on this survey are completely voluntary."

3. Observer writes the inspector's ID on the self-report questionnaire and gives the questionnaire to the inspector. Observers should busy themselves so as not to appear to be watching the inspector complete the questionnaire. Observers should, however, remain within close proximity to the inspector in order to answer appropriate questions.

4. Observer places the completed questionnaire into the inspector's folder and reads the following:

   "Thank you for taking the time to complete the questionnaire. The answers you have provided will prove to be invaluable in this study."

PROTOCOL FOR THE ADMINISTRATION OF THE NEAR VISUAL ACUITY TEST

The following will outline the standard protocol that must be followed during the administration of the "Logarithmic Near Visual Acuity Chart 2000" test:

1. Observer reads the following:

   "I am now going to ask you to take what is known as the "Logarithmic Near Visual Acuity Chart 2000" vision test. This test is similar to standardized vision tests commonly given in a doctor's office. Please recall that all test results are strictly confidential. What I will ask you to do during this test is to hold this small card 16 inches from your eyes as measured by this string and to read as much of the card as you can. Each eye will be tested individually and the card will be different for each eye. You will start by reading across the chart slowly, letter by letter, beginning with the first letter in the top row. Only one reading of each letter is allowed, so it is important to be careful while reading. When you have difficulty reading a letter, you are encouraged to guess. I will let you know when you can stop the test. To ensure that I am able to record your answers as fast as you read them, I ask that you stop at the end of each line until I direct you to start the next line. Do you have any questions about what I have said so far?"

2. Observer reads the following after handing the card to the inspector with CHART 1 facing up:

   "Please hold the black cord in your left hand directly next to your left eye and place the card in the holder on the table. Cover your left eye with this occluder and begin reading the card from the top left as I had described. Remember to stop after reading each line until I tell you to go on to the next line."

3. On the prepared form, observer circles each letter when it is correctly read. Stop the test when it is clear that the inspector is no longer able to see the letters.

4. On the prepared form, observer records the acuity (given on the right side of the chart) for the last line in which the inspector got at least three letters correct. Observer also records this value on the Palm Pilot form where appropriate.

5. Observer reads the following after handing the card to the inspector with CHART 2 facing up:

   "Please hold the black cord in your left hand directly next to your left eye and place the card in the holder on the table. Cover your right eye with this occulder and begin reading the card from the top left as I had described. Remember to stop after reading each line until I tell you to go on to the next line."

6. On the prepared form, observer circles each letter when it is correctly read. Observer stops the test when it is clear that the inspector is no longer able to see the letters.

7. On the prepared form, observer records the acuity (given on the right side of the chart) for the last line in which the inspector got at least three letters correct. Observer also records this value on the Palm Pilot form where appropriate.

8. Observer reads the following:

   "Do you have any questions about this test?"

9. Observer returns the card to its protective bag.

PROTOCOL FOR THE ADMINISTRATION OF THE DISTANCE VISUAL ACUITY TEST

The following will outline the standard protocol that must be followed during the administration of the "Logarithmic Visual Acuity Chart 2000" test:

1. Observer reads the following:

   "I am now going to ask you to take what is known as the logarithmic visual acuity chart "2000" vision test. This test is similar to standardized vision tests commonly given in a doctor's office. Please recall that all test results are strictly confidential. What I will ask you to do during this test is to stand 13 feet from the vision chart and to read as much of the chart as you can. Each eye will be tested individually and the chart will be different for each eye. You will start by reading across the chart slowly, letter by letter, beginning with the first letter in the top row. Only one reading of each letter is allowed, so it is important to be careful while reading. When you have difficulty reading a letter, you are encouraged to guess. I will let you know when you can stop the test. To ensure that I am able to record your answers as fast as you read them, I ask that you stop at the end of each line until I direct you to start the next line. Do you have any questions about what I have said so far?"

2. Observer gives the inspector the occluder and asks the inspector to stand behind the designated line, facing away from the light box.

3. Observer places CHART 1 in the light box and turns on the light box.

4. Observer reads the following:

   "Would you please turn around and cover your left eye with the occluder and begin reading the chart from the top left as I had described. Remember to stop after reading each line until I tell you to go on to the next line."

5. On the prepared form, observer circles each letter when it is correctly read. Observer stops the test when it is clear that the inspector is no longer able to see the letters.

6. On the prepared form, observer records the acuity (given on the right side of the chart) for the last line in which the inspector got at least three letters correct. Observer also records this value on the Palm Pilot form where appropriate.

7. Observer reads the following:

   "Would you please face away from the chart while I change the chart."

8. Observer places CHART 2 in the light box.

9. Observer reads the following:

"Would you please turn around and cover your right eye with the occluder and begin reading the chart from the top left as I had described. Remember to stop after reading each line until I tell you to go on to the next line."

10. On the prepared form, observer circles each letter when it is correctly read. Observer stops the test when it is clear that the inspector is no longer able to see the letters.

11. On the prepared form, observer records the acuity (given on the right side of the chart) for the last line in which the inspector got at least three letters correct. Observer also records this value on the Palm Pilot form where appropriate.

12. Turn off the light box and place both charts in the back of the light box.

PROTOCOL FOR THE ADMINISTRATION OF THE PV-16 COLOR VISION TEST

The following will outline the standard protocol that must be followed during the administration of the PV-16 quantitative color vision test:

1. Observer reads the following:

   "I am now going to ask you to take what is known as the PV-16 quantitative color vision test. Quantitative measurement of color vision is an important diagnostic test used to define the degree of hereditary color vision deficiency and to evaluate deficient color vision from acquired disorders. The goal of this test is to establish what your color vision is. Please remember that all results obtained during this experiment are strictly confidential. What you will be asked to do during this test is to arrange these 16 caps in order. The order will be established by sequencing the caps in such a manner that adjacent caps are closest in color. When we begin, I will give you what is known as the pilot cap. This cap will serve as your starting point. You will be asked to complete this test a total of four times. Do you have any questions about what I have said so far?"

2. Observer removes the caps from the protective case.

3. Observer places the reduction rings on all of the caps.

4. Observer locates the pilot cap.

5. Observer randomly mixes up the caps face up on the table.

6. Observer reads the following:

   "Would you now sequence the caps as I had previously described such that adjacent caps are closest in color, beginning with the pilot cap."

7. After the inspector lines them up, starting with the pilot cap, observer completes the prepared form (Precision Vision form) by turning the caps over such that the inspector cannot see the numbers or the prepared form.

8. Observer mixes up the caps face up on the table and reads the following:

   "Would you now sequence the caps as I had previously described such that adjacent caps are closest in color, beginning with the pilot cap."

9. While the inspector is completing the second trial, observer notes test results on Palm Pilot laboratory test form, noting the following information:

   - Number of minor confusions (number of adjacent caps that are reversed).

- Number of crossings across color circle (number of times there is an error other than a minor confusion).
- Type of color vision deficiency (if any).

10. After inspector lines them up, starting with the pilot cap, observer completes the prepared form (Precision Vision form) by turning the caps over such that the inspector cannot see the numbers or the prepared form.

11. Observer removes the reduction rings.

12. Observer repeats steps 6 through 9 two more times.

13. Observer reads the following:

    "Do you have any questions for me about the PV-16 quantitative color vision test?"

14. Observer records the inspector's ID on the prepared form (Precision Vision form) and initials the bottom of the form. Observer places prepared form in the inspector's folder.

15. Observer places all of the caps into the protective case.

APPENDIX H. PRE-EXPERIMENT EVALUATION FORMS

TASK A PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

4. How long has it been since you completed a Routine Inspection of a bridge of this type? (Note: Record time in weeks.) _____

5. What accessibility equipment/vehicles would you normally use for a Routine Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

6. Describe, as completely as you can, the type of construction used on this bridge.
   - ___ Steel through girder
   - ___ Plate girder
   - ___ Riveted
   - ___ Fracture-critical
   - ___ Cast-in-place concrete slab
   - ___ Simply supported
   - ___ Skewed
   - ___ Floor beams
   - ___ Asphalt overlay
   - ___ Other: _____

7. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Cracked/debonded/loose asphalt
   - ___ Steel corrosion/section loss
   - ___ Paint deterioration
   - ___ Concrete deterioration
   - ___ Inadequate concrete cover
   - ___ Impact damage
   - ___ Fatigue cracking
   - ___ Settlement cracking of abutments
   - ___ Missing rivets/rivetheads
   - ___ Underside deck cracking
   - ___ Leaching

___ Leakage
___ Other: _____

8. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

9. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

10. Would you normally inspect under these weather conditions?
Yes No

11. General Observer Notes:

TASK B PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

4. How long has it been since you completed a Routine Inspection of a bridge of this type? (Note: Record time in weeks.) _____

5. What accessibility equipment/vehicles would you normally use for a Routine Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

6. Describe, as completely as you can, the type of construction used on this bridge.
   - ___ Concrete T-beam
   - ___ Cast-in-place reinforced concrete
   - ___ Simply supported
   - ___ Other: _____

7. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Concrete deterioration
   - ___ Inadequate concrete cover
   - ___ Spalling
   - ___ Freeze/thaw damage
   - ___ Impact damage
   - ___ Delaminations
   - ___ Settlement cracking of abutments
   - ___ Expansion joint deterioration
   - ___ Underside deck cracking
   - ___ Leaching
   - ___ Leakage
   - ___ Other: _____

8. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

9. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

10. Would you normally inspect under these weather conditions?

Yes No

11. General Observer Notes:

TASK C PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

SKIP the following if AFTER another T-beam task:

4. How long has it been since you completed a Routine Inspection of a bridge of this type? (Note: Record time in weeks.) _____

SKIP the following if AFTER another T-beam task:

5. What accessibility equipment/vehicles would you normally use for a Routine Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

SKIP the following if AFTER another T-beam task:

6. Describe, as completely as you can, the type of construction used on this bridge.
   - ___ Concrete T-beam
   - ___ Cast-in-place reinforced concrete
   - ___ Simply supported
   - ___ Skewed
   - ___ Other: _____

SKIP the following if AFTER another T-beam task:

7. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Concrete deterioration
   - ___ Inadequate concrete cover
   - ___ Spalling
   - ___ Freeze/thaw damage
   - ___ Impact damage
   - ___ Delaminations
   - ___ Settlement cracking of abutments
   - ___ Expansion joint deterioration
   - ___ Underside deck cracking
   - ___ Leaching
   - ___ Leakage
   - ___ Other: _____

SKIP the following if AFTER another T-beam task:

8. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

9. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

10. Would you normally inspect under these weather conditions?

Yes No

11. General Observer Notes:

TASK D PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

4. How long has it been since you completed a Routine Inspection of a bridge of this type? (Note: Record time in weeks.) _____

5. What accessibility equipment/vehicles would you normally use for a Routine Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

6. Describe, as completely as you can, the type of construction used on this bridge.
   - ___ Concrete rigid frame
   - ___ Skewed
   - ___ Other: _____

7. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Concrete deterioration
   - ___ Inadequate concrete cover
   - ___ Spalling
   - ___ Freeze/thaw damage
   - ___ Impact damage
   - ___ Delaminations
   - ___ Settlement cracking of abutments
   - ___ Expansion joint deterioration
   - ___ Underside deck (arch) cracking
   - ___ Leaching
   - ___ Leakage
   - ___ Other: _____

8. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

9. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

10. Would you normally inspect under these weather conditions?

Yes No

11. General Observer Notes:

TASK E PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

4. How long has it been since you completed a Routine Inspection of a bridge of this type? (Note: Record time in weeks.) _____

5. What accessibility equipment/vehicles would you normally use for a Routine Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

6. Describe, as completely as you can, the type of construction used on this bridge.
   - ___ Steel plate girder
   - ___ Riveted
   - ___ Cast-in-place concrete slab
   - ___ Simply supported
   - ___ Skewed
   - ___ Floor beams and sway frames
   - ___ Asphalt overlay
   - ___ Other: _____

7. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Cracked/debonded/loose asphalt
   - ___ Steel corrosion and section loss
   - ___ Paint deterioration
   - ___ Concrete deterioration
   - ___ Inadequate concrete cover
   - ___ Impact damage
   - ___ Settlement cracking of abutments
   - ___ Missing rivets/rivetheads
   - ___ Underside deck cracking
   - ___ Fatigue cracking of tack welds
   - ___ Leaching
   - ___ Leakage
   - ___ Other: _____

8. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

9. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

10. Would you normally inspect under these weather conditions?

Yes No

11. General Observer Notes:

TASK F PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

4. How long has it been since you completed an In-Depth Inspection of this type on a bridge of this type? (Note: Record time in weeks.) _____

5. What accessibility equipment/vehicles would you normally use for an In-Depth Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

6. Have you ever completed an inspection from a lift similar to this one?
   Yes No

7. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

8. How rested are you?
   1 2 3 4 5 6 7 8 9
   Very Tired Very Rested

9. Would you normally inspect under these weather conditions?
   Yes No

10. General Observer Notes:

TASK G PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

4. Was Task 1 or Task 2 performed first? Task 1 Task 2

5. How long has it been since you completed a Routine Inspection of a bridge of this type? (Note: Record time in weeks.) _____

6. What accessibility equipment/vehicles would you normally use for a Routine Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

7. Describe, as completely as you can, the type of construction used on this bridge.
   - ___ Steel girder
   - ___ Welded plate girder
   - ___ Multi-girder
   - ___ Reinforced concrete deck
   - ___ Continuous superstructure
   - ___ Rocker bearings
   - ___ Concrete piers
   - ___ Single-angle cross-bracing
   - ___ Composite construction
   - ___ Other: _____

8. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Steel corrosion/section loss
   - ___ Fatigue cracking
   - ___ Concrete deterioration
   - ___ Impact damage
   - ___ Paint deterioration
   - ___ Locked bearings
   - ___ Underside deck cracking
   - ___ Deck delaminations
   - ___ Expansion joint deterioration

___ Leaching
___ Leakage
___ Other: _____

9. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

10. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

11. Would you normally inspect under these weather conditions?

Yes No

12. General Observer Notes:

TASK H PRE-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Date: _____
3. Time: _____

4. How long has it been since you completed an In-Depth Inspection of this type on a bridge of this type? (Note: Record time in weeks.) _____

5. What accessibility equipment/vehicles would you normally use for an In-Depth inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

6. Have you ever completed an inspection from a lift similar to this one?
   Yes No

7. How often do you perform inspections at heights above 40 ft? (Note: Record amount in frequency per year.) _____

8. Describe, as completely as you can, the type of construction used on this bridge.
   - ___ Steel girder
   - ___ Welded plate girder
   - ___ Multi-girder
   - ___ Reinforced concrete deck
   - ___ Continuous superstructure
   - ___ Rocker bearings
   - ___ Concrete piers
   - ___ Single-angle cross-bracing
   - ___ Composite construction
   - ___ Other: _____

9. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Steel corrosion/section loss
   - ___ Fatigue cracking
   - ___ Concrete deterioration
   - ___ Impact damage
   - ___ Paint deterioration

___ Locked bearings
___ Underside deck cracking
___ Deck delaminations
___ Expansion joint deterioration
___ Leaching
___ Leakage
___ Other: _____

10. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record time in minutes.) _____

11. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

12. Would you normally inspect under these weather conditions?
Yes No

13. General Observer Notes:

TASK I PRE-EXPERIMENT EVALUATION FORM

1. Team ID: _____
2. Date: _____
3. Time: _____

4. How long has it been since you completed a Routine Inspection of a bridge of this type (Inspector #1)? (Note: Record time in weeks.) _____

5. How long has it been since you completed a Routine Inspection of a bridge of this type (Inspector #2)? (Note: Record time in weeks.) _____

6. How long did you spend preparing to complete this inspection prior to arriving at the bridge site? (Note: Record time in man-hours.) _____

7. What accessibility equipment/vehicles would you normally use for a Routine Inspection of this type?
   - ___ Snooper
   - ___ Lift
   - ___ Ladder
   - ___ Scaffold
   - ___ Climbing Equipment
   - ___ Permanent Inspection Platform
   - ___ Movable Platform
   - ___ None
   - ___ Other: _____

8. Given a bridge of this type, general condition, and age, what types of problems would you expect to find?
   - ___ Steel corrosion/section loss
   - ___ Fatigue cracking
   - ___ Concrete deterioration
   - ___ Impact damage
   - ___ Paint deterioration
   - ___ Locked bearings
   - ___ Underside deck cracking
   - ___ Deck delaminations
   - ___ Expansion joint deterioration
   - ___ Leaching
   - ___ Leakage
   - ___ Other: _____

9. Given the available equipment and the defined tasks, how long do you think you would normally spend on this inspection? (Note: Record team time in minutes.) _____

10. How rested are you (Inspector #1)?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

11. How rested are you (Inspector #2)?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

12. Would you normally inspect under these weather conditions?

Yes No

13. General Observer Notes:

APPENDIX I. POST-EXPERIMENT EVALUATION FORMS

TASK A POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal Routine Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

13. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

14. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

15. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

16. What other tools would you have normally used during an inspection of this type?
    _____

17. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

18. Is there anything about this task or your performance that you would like me to make note of? _____

19. General Observer Notes:

TASK B POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal Routine Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

13. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

14. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

15. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

16. What other tools would you have normally used during an inspection of this type?
    _____

17. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

18. Is there anything about this task or your performance that you would like me to make note of? _____

19. General Observer Notes:

TASK C POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal Routine Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

SKIP the following if AFTER another T-beam task:

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

SKIP the following if AFTER another T-beam task:

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

13. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

14. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

15. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

16. What other tools would you have normally used during an inspection of this type?
    _____

17. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

18. Is there anything about this task or your performance that you would like me to make note of? _____

19. General Observer Notes:

TASK D POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal Routine Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

13. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

14. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

15. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

16. What other tools would you have normally used during an inspection of this type?
    _____

17. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

18. Is there anything about this task or your performance that you would like me to make note of? _____

19. General Observer Notes:

TASK E POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal Routine Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

13. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

14. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

15. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

16. What other tools would you have normally used during an inspection of this type?
    _____

17. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

18. Is there anything about this task or your performance that you would like me to make note of? _____

19. General Observer Notes:

TASK F POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal In-Depth Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Do you feel the working height influenced your inspection performance?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

13. How adequate do you feel the light level was?

1	2	3	4	5	6	7	8	9
Not Adequate								Very Adequate

14. On average, how close do you think you got to the components you were inspecting? (Note: Record distance in inches.) _____

15. Do you feel you were able to get the proper viewing angle?

1	2	3	4	5	6	7	8	9
Never								Always

16. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

17. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

18. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

19. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

20. What other tools would you have normally used during an inspection of this type?
    _____

21. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

22. Is there anything about this task or your performance that you would like me to make note of? _____

23. General Observer Notes:

TASK G POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal Routine Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not?

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

13. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

14. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

15. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

16. What other tools would you have normally used during an inspection of this type?
    _____

17. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

18. Is there anything about this task or your performance that you would like me to make note of? _____

19. General Observer Notes:

TASK H POST-EXPERIMENT EVALUATION FORM

1. Inspector ID: _____
2. Time: _____

3. How similar were these inspection tasks to the tasks performed in your normal In-Depth Inspections?

1	2	3	4	5	6	7	8	9
Not Similar								Very Similar

4. Did this task do an accurate job of measuring your inspection skills?

1	2	3	4	5	6	7	8	9
Very Inaccurate								Very Accurate

5. How rested are you?

1	2	3	4	5	6	7	8	9
Very Tired								Very Rested

6. How well did you understand the instructions you were given?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

7. How accessible do you feel the various bridge components were?

1	2	3	4	5	6	7	8	9
Very Inaccessible								Very Accessible

8. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

9. How well do you feel that this bridge has been maintained?

1	2	3	4	5	6	7	8	9
Very Poorly								Very Well

10. How complex was this bridge?

1	2	3	4	5	6	7	8	9
Very Simple								Very Complex

11. Do you think my presence as an observer had any influence on your inspection?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

12. Do you feel the working height influenced your inspection performance?

1	2	3	4	5	6	7	8	9
No Influence								Great Influence

13. How adequate do you feel the light level was?

1	2	3	4	5	6	7	8	9
Not Adequate								Very Adequate

14. On average, how close do you think you got to the welds you were inspecting? (Note: Record distance in inches.) _____

15. Do you feel you were able to get the proper viewing angle for the components you were inspecting?

1	2	3	4	5	6	7	8	9
Never								Always

16. Did you feel rushed while completing this task?

1	2	3	4	5	6	7	8	9
Not Rushed								Very Rushed

17. What was your effort level on this task in comparison with your normal effort level?

1	2	3	4	5	6	7	8	9
Much Lower				Average				Much Greater

18. How thorough were you in completing this task in comparison to your normal inspection?

1	2	3	4	5	6	7	8	9
Less Thorough				Average				More Thorough

19. Did you have any specific distractions that adversely affected your inspection?
    - ___ Hunger
    - ___ "Nature calls"
    - ___ Access equipment stability
    - ___ Height
    - ___ Temperature
    - ___ Humidity
    - ___ Wind
    - ___ Traffic
    - ___ Noise
    - ___ Other: _____

20. What other tools would you have normally used during an inspection of this type?
    _____

21. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

22. Is there anything about this task or your performance that you would like me to make note of? _____

23. General Observer Notes:

TASK I POST-EXPERIMENT EVALUATION FORM

1. Team ID: _____
2. Time: _____

3. Did this task do an accurate job of measuring your inspection skills (Inspector #1)?
   1 2 3 4 5 6 7 8 9
   Very Inaccurate Very Accurate

4. Did this task do an accurate job of measuring your inspection skills (Inspector #2)?
   1 2 3 4 5 6 7 8 9
   Very Inaccurate Very Accurate

5. How rested are you (Inspector #1)?
   1 2 3 4 5 6 7 8 9
   Very Tired Very Rested

6. How rested are you (Inspector #2)?
   1 2 3 4 5 6 7 8 9
   Very Tired Very Rested

7. How well did you understand the instructions you were given?
   1 2 3 4 5 6 7 8 9
   Very Poorly Very Well

8. How accessible do you feel the various bridge components were?
   1 2 3 4 5 6 7 8 9
   Very Inaccessible Very Accessible

9. Were there any inaccessible parts of the bridge that you would have liked to inspect, but could not? _____

10. How well do you feel that this bridge has been maintained?
    1 2 3 4 5 6 7 8 9
    Very Poorly Very Well

11. How complex was this bridge?
    1 2 3 4 5 6 7 8 9
    Very Simple Very Complex

12. Do you think my presence as an observer had any influence on your inspection?
    1 2 3 4 5 6 7 8 9
    No Influence Great Influence

13. Did you feel rushed while completing this task (Inspector #1)?

1 2 3 4 5 6 7 8 9

Not Rushed Very Rushed

14. Did you feel rushed while completing this task (Inspector #2)?

1 2 3 4 5 6 7 8 9

Not Rushed Very Rushed

15. What was your effort level on this task in comparison with your normal effort level (Inspector #1)?

1 2 3 4 5 6 7 8 9

Much Lower Average Much Greater

16. What was your effort level on this task in comparison with your normal effort level (Inspector #2)?

1 2 3 4 5 6 7 8 9

Much Lower Average Much Greater

17. How thorough were you in completing this task in comparison to your normal inspection?

1 2 3 4 5 6 7 8 9

Less Thorough Average More Thorough

18. Did you have any specific distractions that adversely affected your inspection (Inspector #1)?

___ Hunger
___ "Nature calls"
___ Access equipment stability
___ Height
___ Temperature
___ Humidity
___ Wind
___ Traffic
___ Noise
___ Other: _____

19. Did you have any specific distractions that adversely affected your inspection (Inspector #2)?

___ Hunger
___ "Nature calls"
___ Access equipment stability
___ Height
___ Temperature
___ Humidity
___ Wind
___ Traffic
___ Noise
___ Other: _____

20. What other tools would you have normally used during an inspection of this type?
_____

21. Are there any follow-up inspection or maintenance actions that you would recommend to your supervisor? _____

22. Is there anything about this task or your performance that you would like me to make note of? _____

23. General Observer Notes:

Go back to main publications page to access the other sections of this appendix.