



The Knowledge Leader for Project Success

Owners • Contractors • Academics

10-10 Program – Front End Planning Questionnaire

Infrastructure Projects

Instructions

This questionnaire is for the Front End Planning (FEP) phase. The starting point of the Front End Planning phase is the **identification of a single project concept** and the establishment of a dedicated project team. Front End Planning concludes at **full funding authorization** for the detailed design and construction of the project.

Each questionnaire includes three sections. The first section focuses on general project information such as project location, nature, and selected delivery method. The second section addresses input measures by asking various types of questions such as those requiring yes/no and sliding-scale (Likert-scale) responses (i.e., from 'strongly agree' to 'strongly disagree'). The final (third) section asks project outputs such as cost, schedule, and capacity. In the questionnaire, for the terms marked with an *asterisk* (*), additional description is available in the Appendix.

The questionnaire is designed to be **completed by members of the project's management team**. If you are a member of this team, please answer the following questions to the best of your ability. If you are unable to answer a particular question, leave it blank and move to the next question. Remember, some of these questions are intentionally subjective by design.

All data provided for the survey by participating individuals and organizations are considered confidential. These data will not be viewed by any party other than CII staff members.

You can review the CII Benchmarking Code of Conduct at the following site: <https://www.construction-institute.org/scriptcontent/bmm-code.cfm?section=bmm>

Should you have any questions about the 10-10 Performance Assessment Campaign, please contact Dr. Daniel Oliveira via e-mail (daniel.oliveira@cii.utexas.edu) or by phone at (512) 232-3050.

The Performance Assessment Committee thanks you for your participation in this very important industry initiative!

CII Performance Assessment Committee

I. General Information

Your Company Name:

Your Name:

Project Name:

Owner Company Name:

Project Construction Location: City: _____, (State or Province): _____, Country: _____

Lead Construction Contractor:

Lead Engineering Office Location: City: _____, (State or Province): _____, Country: _____

Lead Engineering Contractor:

Currency:

Unit System: () Imperial () Metric

Exchange Rate: 1 USD =

Midpoint of Actual Phase (Front End Planning) (mm/dd/yyyy)

Closest Cost Index Location: City: _____, (State or Province): _____, Country: _____

Project Type

- | | |
|--|---|
| <input type="checkbox"/> Airport | <input type="checkbox"/> Rail |
| <input type="checkbox"/> Electrical Distribution | <input type="checkbox"/> Tunneling |
| <input type="checkbox"/> Flood Control | <input type="checkbox"/> Water/Wastewater |
| <input type="checkbox"/> Highway | <input type="checkbox"/> Telecom, Wide Area Network |
| <input type="checkbox"/> Marine Facilities | <input type="checkbox"/> Pipeline |
| <input type="checkbox"/> Central Utility Plant (CUP) | <input type="checkbox"/> Tank Farms |
| <input type="checkbox"/> Process Control | <input type="checkbox"/> Gas Distribution |
| <input type="checkbox"/> Navigation | <input type="checkbox"/> Other Infrastructure |

Project Nature

Grass Roots, Greenfield ()	Brownfield (co-locate) ()	Addition, Expansion ()
Modernization, Renovation, Upgrade ()		

If project nature is brownfield or grassroots; did the project's design incorporate provisions for future expansion?

YES NO

If project nature is Addition or expansion or modernization, renovation, upgrade; did the existing facility's as-built condition include specific provisions for its addition, expansion, modernization, renovation or upgrade?

YES NO

Project Delivery Method

<input type="checkbox"/>	Design-Bid-Build	Serial sequence of design and construction phases: owner contracts separately with designer and constructor.
<input type="checkbox"/>	Design-Build (EPC)	Owner contracts with Design-Build (EPC) contractor.
<input type="checkbox"/>	CM at Risk	Owner contracts with designers and construction manager (CM). CM holds the contracts.
<input type="checkbox"/>	Parallel Primes	Owner contracts separately with designer and multiple prime constructors.

[Contractor Only] Which phase(s) did your company participate in on this project? (check all that apply)

FEP Engineering Procurement Construction Commissioning

Project Description

Please briefly describe this project (i.e., what does the facility produce (?), what is its scope (?))

- Did this project use PDRI? YES NO
- If yes, was the PDRI externally facilitated? YES NO
- If yes, what was the total PDRI score at Full Funding Authorization?

- What was the average project management team* size (in FTE)? What was the maximum project management team size (in FTE)?

Ave. Team Size (in FTE)		Max. Team Size (in FTE)	
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- Did this project incorporate a concession agreement for the operation of the facility? YES NO
- If yes, what was the base duration of concession agreement?

 Years

- What is the service life of the facility?

 Years

- What is the expected average annual maintenance cost?

\$

- The project delivery method and contract type were mandated by regulation(s). YES NO

II. Input Measures

1. Your Cumulative Years of Experience in Capital Projects: _____

2. Are you the Project Manager? YES NO

3. The complexity of this project was very high based on its (check all that apply):

() Size () Schedule () Contract strategy () Diversity of project team
 () Technology risks () Process scope () Supply chain reliability () External stakeholders
 () Traffic control () Location () Work zone congestion
 Other (specify): _____

4. A robust, formal stage-gate process was rigorously followed for this project.

Robust Process, No Rigor	No Process, No Rigor	Robust Process, Rigor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. What percentage of engineering was completed prior to full funding authorization?

%

6. Was there a formal, documented constructability plan during Front End Planning?

- Yes, there was a formal documented constructability plan.
- Yes, there was a constructability plan, but not formally documented.
- No, there was no constructability plan.

7. Please characterize how project meetings were conducted (check all that apply).

- Including appropriate representation of stakeholders, i.e., the 'right' people are present
- Effective mechanisms for resolving project related issues (as measured by pre-planning, time, content, documentation, follow-up, etc.)
- Occurring with a frequency that meets the project's needs
- Having meaningful output that justifies my time investment.

8. Which of the following statements characterized the decisions made by the manager(s) of this project? (check all that apply).

- Considered final and not revisited
- Collaborative and inclusive
- Made at the lowest appropriate level in the organization
- Communicated promptly to the team
- Made in a timely and effective manner
- Consistent with the delegation of authority

9. Was there a formal (documented in writing) change management process for this project?

- Yes, a formal, documented change management process existed
- Yes, there was a process, but it was not formal nor documented
- No change management process existed

10. Was a life cycle cost analysis completed for this project? YES NO

If yes, which of the following were considered? (please check all that apply)

- Carbon Footprint Measurement
- Energy Optimization
- Waste Minimization
- Sustainability Certification

	Yes	No
11. Did Front End Planning incorporate community relations issues?	<input type="checkbox"/>	<input type="checkbox"/>
12. Was the owner's project manager assigned at the beginning of Front End Planning?	<input type="checkbox"/>	<input type="checkbox"/>
13. Was the construction manager assigned during Front End Planning?	<input type="checkbox"/>	<input type="checkbox"/>
14. Was the engineering manager assigned during Front End Planning?	<input type="checkbox"/>	<input type="checkbox"/>
15. Was the lead scheduler assigned during Front End Planning?	<input type="checkbox"/>	<input type="checkbox"/>
16. Was the cost engineer assigned during Front End Planning?	<input type="checkbox"/>	<input type="checkbox"/>
17. The project had integrated peer reviews during Front End Planning.	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree	Neutral		Strongly Agree	
18. The Front End Planning process included sufficient resources necessary to adequately define the scope.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. The owner level of involvement was appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The project team members were familiar with the project execution plan (PEP) and they used it to manage their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. The procurement strategy and plan were developed and communicated to the project team during Front End Planning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. The project team was well aligned in terms of the owner's objectives, needs and expectations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. The project execution plan supported the objectives of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. The Front End Planning process adapted to changes in project objectives, public needs, or market conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. The equipment procurement and vendor schedules were a not significant challenge during Front End Planning on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Strongly	Neutral		Strongly	

	Disagree			Agree	
26. The project had an effective risk identification and management process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Preassembly*, prefabrication*, modularization*, and offsite fabrication* were thoroughly evaluated during Front End Planning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. A formal Commissioning execution plan was developed which incorporated operations and maintenance philosophy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Project management team* members were clear about their roles and how to work with others on the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. The project team including project manager(s) had skills and experiences with similar projects / processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. The project management team* was adequately staffed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. People on this project worked effectively as a team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. The project experienced a minimum number of project management team* personnel changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. The interfaces between project stakeholders were well managed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Key project team members understood the owner's goals and objectives of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. All of the necessary, relevant project team members were involved in the risk assessment process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. Project leaders recognized and rewarded outstanding personnel and results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Leadership effectively communicated organizational objectives, priorities, and project goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Project leaders were open to hearing "bad news", and they wanted input from project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. The project management team* maintained open and effective communication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Project team members had the information they needed to do their jobs effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Plan and progress including changes were communicated clearly and frequently amongst project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. A high degree of trust, respect and transparency existed amongst organizations working on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. The project's Commissioning objectives were appropriately communicated to the relevant project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. The project's work processes and systems (e.g., document management, project controls, business and financial systems) supported project success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
46. When issues arose, there were effective mechanisms to ensure they were resolved.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. The acquisition of land and/or Right of Way (ROW) proceeded according to plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. The project team members attended sufficient professional training directly related to their Front End Planning work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. Key stakeholders including the public were properly identified and involved during Front End Planning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. All required environmental impact assessments were completed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. The initial site and/or existing facility conditions were fully verified for the deliverables of this phase.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. All applicable national, regional, and local compliance requirements were well defined and understood by all relevant project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Effective cooperation and coordination existed amongst the organizations and regulatory agencies involved in this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Output Measures

1. Please provide the estimated and actual phase (Front End Planning) cost.

Estimated Cost (\$)	Actual Cost (\$)

2. Please provide the forecasted total project cost and duration.

Cost: \$	Duration: weeks
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3. Please provide the total number of major equipment* items

piece count

4. Please provide the estimated and actual phase (FEP) start and end dates

Estimated Schedule (mm/dd/yyyy)		Actual Schedule (mm/dd/yyyy)	
Start	Stop	Start	Stop

5. What is the forecasted capacity of the facility?

Capacity	Unit (e.g., lane-miles, diameter-in./km)	
	Capacity	



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10-10 Program – Engineering Questionnaire

Infrastructure Projects

Instructions

This questionnaire is for the Engineering phase. The starting point of the Engineering phase is the beginning of **detailed design activity**. Engineering concludes with the **completion of all plans and specifications** for the project.

Each questionnaire includes three sections. The first section focuses on general project information such as project location, nature, and selected delivery method. The second section addresses input measures by asking various types of questions such as those requiring yes/no and sliding-scale (Likert-scale) responses (i.e., from 'strongly agree' to 'strongly disagree'). The final (third) section asks project outputs such as cost, schedule, and capacity. In the questionnaire, for the terms marked with an *asterisk* (*), additional description is available in the Appendix.

The questionnaire is designed to be **completed by members of the project's management team**. If you are a member of this team, please answer the following questions to the best of your ability. If you are unable to answer a particular question, leave it blank and move to the next question. Remember, some of these questions are intentionally subjective by design.

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The Performance Assessment Committee thanks you for your participation in this very important industry initiative!

CII Performance Assessment Committee

I. General Information

Your Company Name:

Your Name:

Project Name:

Owner Company Name:

Project Construction Location: City: _____, (State or Province): _____, Country: _____

Lead Construction Contractor:

Lead Engineering Office Location: City: _____, (State or Province): _____, Country: _____

Lead Engineering Contractor:

Currency:

Unit System: () Imperial () Metric

Exchange Rate: 1 USD =

Midpoint of Actual Phase (Engineering) (mm/dd/yyyy)

Closest Cost Index Location: City: _____, (State or Province): _____, Country: _____

Project Type

- | | |
|--|---|
| <input type="checkbox"/> Airport | <input type="checkbox"/> Rail |
| <input type="checkbox"/> Electrical Distribution | <input type="checkbox"/> Tunneling |
| <input type="checkbox"/> Flood Control | <input type="checkbox"/> Water/Wastewater |
| <input type="checkbox"/> Highway | <input type="checkbox"/> Telecom, Wide Area Network |
| <input type="checkbox"/> Marine Facilities | <input type="checkbox"/> Pipeline |
| <input type="checkbox"/> Central Utility Plant (CUP) | <input type="checkbox"/> Tank Farms |
| <input type="checkbox"/> Process Control | <input type="checkbox"/> Gas Distribution |
| <input type="checkbox"/> Navigation | <input type="checkbox"/> Other Infrastructure |

Project Nature

Grass Roots, Greenfield ()	Brownfield (co-locate) ()	Addition, Expansion ()
Modernization, Renovation, Upgrade ()		

If project nature is brownfield or grassroots; did the project's design incorporate provisions for future expansion?

YES NO

If project nature is Addition or expansion or modernization, renovation, upgrade; did the existing facility's as-built condition include specific provisions for its addition, expansion, modernization, renovation or upgrade?

YES NO

Project Delivery Method

<input type="checkbox"/>	Design-Bid-Build	Serial sequence of design and construction phases: owner contracts separately with designer and constructor.
<input type="checkbox"/>	Design-Build (EPC)	Owner contracts with Design-Build (EPC) contractor.
<input type="checkbox"/>	CM at Risk	Owner contracts with designers and construction manager (CM). CM holds the contracts.
<input type="checkbox"/>	Parallel Primes	Owner contracts separately with designer and multiple prime constructors.

Primary Contract Type for Detail Design / Engineering

<input type="checkbox"/>	Lump Sum	<input type="checkbox"/>	Unit Price
<input type="checkbox"/>	Cost Reimbursable	<input type="checkbox"/>	Guaranteed Maximum Price (GMP)

[Contractor Only] Which phase(s) did your company participate in on this project? (check all that apply)
 FEP Engineering Procurement Construction Commissioning

Project Description

Please briefly describe this project (i.e., what does the facility produce (?), what is its scope (?))

- What was the average engineering team size (in FTE) and the maximum engineering team size (in FTE)?

Ave. Team Size (in FTE)		Max. Team Size (in FTE)	
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- What was the average project management team* size (in FTE)? What was the maximum project management team size (in FTE)?

Ave. Team Size (in FTE)		Max. Team Size (in FTE)	
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- Did this project incorporate a concession agreement for the operation of the facility? YES NO
 If yes, what was the base duration of concession agreement?

Years

- What is the service life of the facility?

Years

- What is the expected average annual maintenance cost?

\$

- The project delivery method and contract type were mandated by regulation(s). YES NO

II. Input Measures

1. Your Cumulative Years of Experience in Capital Projects: _____

2. Are you the Project Manager? YES NO

3. The complexity of this project was very high based on its (check all that apply):

() Size () Schedule () Contract strategy () Diversity of project team
 () Technology risks () Process scope () Supply chain reliability () External stakeholders
 () Traffic control () Location () Work zone congestion
 Other (specify): _____

4. Did the major project objectives change during Engineering?

Yes (<u>Major</u> Change)	Yes (<u>Minor</u> Change)	No
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. This project used the following engineering, standards and specifications. (Please check all that apply)

- Existing owner standards
- Existing engineering contracting company standard
- Published industry standard

6. This project experienced a high number of (please check all that apply):

- Scope change / creep
- Deviation notices
- Major equipment* list changes
- Project development changes
- Non-conformance reports
- Program changes

7. Please characterize how project meetings were conducted (check all that apply).

- Including appropriate representation of stakeholders, i.e., the 'right' people are present
- Effective mechanisms for resolving project related issues (as measured by pre-planning, time, content, documentation, follow-up, etc.)
- Occurring with a frequency that meets the project's needs
- Having meaningful output that justifies my time investment.

8. Which of the following statements characterized the decisions made by the manager(s) of this project? (check all that apply).

- Considered final and not revisited
- Collaborative and inclusive
- Made at the lowest appropriate level in the organization
- Communicated promptly to the team
- Made in a timely and effective manner
- Consistent with the delegation of authority

9. Was a life cycle cost analysis completed for this project? YES NO

If yes, which of the following were considered? (please check all that apply)

- Carbon Footprint Measurement
- Energy Optimization
- Waste Minimization
- Sustainability Certification

10. What percentage of Engineering was completed prior to the start of construction?

%

	Yes	No	
11. Was the construction manager involved during Detailed Design / Engineering?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Were multiple design offices used on this project?	<input type="checkbox"/>	<input type="checkbox"/>	
	Strongly Disagree	Neutral	Strongly Agree
13. The owner level of involvement was appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The project team members were familiar with the project execution plan (PEP) and they used it to manage their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The Procurement strategy and plan were communicated to the project team during Engineering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The project objective and priorities were clearly defined.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The equipment Procurement and vendor schedules were not a significant challenge for this project during Engineering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Comprehensive constructability suggestions (e.g., preassembly*, prefabrication*, modularization*, and offsite fabrication*) were evaluated and incorporated into the Engineering of the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. A formal Commissioning execution plan including operations and maintenance philosophy was incorporated in Engineering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. This project incorporated community relations issues in Engineering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Project management team* members were clear about their roles and how to work with others on the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Project team members had the authority necessary to do their jobs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. The project team including project manager(s) had skills and experiences with similar projects / processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
24. People on this project worked effectively as a team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. The project experienced a minimum number of project management team* personnel changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. The key stakeholders (owner, design, vendors and suppliers) were fully aligned during Detailed Design / Engineering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. The interfaces between project stakeholders were well managed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Key project team members understood the owner's goals and objectives of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. All of the necessary, relevant project team members were involved in an effective risk identification and management process for Engineering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Project leaders recognized and rewarded outstanding personnel and results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Leadership effectively communicated organizational objectives, priorities, and project goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Resources were allocated according to project priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Project leaders were open to hearing "bad news", and they wanted input from project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Project team members had the information they needed to do their jobs effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Plan and progress including changes were communicated clearly and frequently amongst project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. A high degree of trust, respect and transparency existed amongst organizations working on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. The project's Commissioning objectives were appropriately communicated to the relevant project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. The project's work processes and systems (e.g., document management, project controls, business and financial systems) supported project success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. The number and quality of Design / Engineering personnel was sufficient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. When issues arose, there were effective mechanisms to ensure they were resolved.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Engineering deliverables were released in a timely manner as a result of a good Engineering work sequence on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
42. The Engineering deliverables were complete and accurate (possessing a minimal amount of errors and omissions).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. The project control system was effective in monitoring project progress in terms of cost, schedule, and scope.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. A dedicated process was used to proactively manage change on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. A formal project Quality Management System was used for the Engineering of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. An interim product database and/or standardized designs were used extensively in the Engineering of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. The project team members attended sufficient professional training directly related to their Engineering work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. The customer was satisfied with the Engineering phase deliverables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. The cost of quality was determined during the Engineering phase of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. The acquisition of land and/or Right of Way (ROW) proceeded according to plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. Key stakeholders including the public were properly identified and involved during Engineering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. All required environmental impact assessments were completed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. The initial site and/or existing facility conditions were fully verified for the deliverables of this phase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. All applicable national, regional, and local compliance requirements were well defined and understood by all relevant project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. Effective cooperation and coordination existed amongst the companies and regulatory agencies involved in this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Output Measures

1. Please provide the estimated and actual phase (Engineering) cost.

Estimated Cost (\$)	Actual Cost (\$)

2. Please provide the forecasted total project cost and duration.

Cost: \$

Duration: weeks

3. Please provide the total number of major equipment*.

piece count

4. Please provide the estimated and actual phase (Engineering) start and end dates

Estimated Schedule (mm/dd/yyyy)		Actual Schedule (mm/dd/yyyy)	
Start	Stop	Start	Stop

5. What is the forecasted capacity of the facility?

Capacity	Unit (e.g., lane-miles, diameter-in./km)	
	Capacity	

6. What was the total number of Engineering work hours?

hours

7. Please provide the IFC (Issued For Construction) quantities.

Total Concrete	(<input type="text"/>)	cy
Total Structural Steel	(<input type="text"/>)	ton
Total Wire and Cable	(<input type="text"/>)	lf
Total Piping	(<input type="text"/>)	lf
Total Equipment	(<input type="text"/>)	ton
Instrumentation	(<input type="text"/>)	I/O counts



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10-10 Program – Procurement Questionnaire

Infrastructure Projects

Instructions

This questionnaire is for the Procurement phase. The Procurement phase begins with the **development of a Procurement plan** for the major equipment and a major equipment list. It concludes when **all materials and equipment have been delivered to the site**.

Each questionnaire includes three sections. The first section focuses on general project information such as project location, nature, and selected delivery method. The second section addresses input measures by asking various types of questions such as those requiring yes/no and sliding-scale (Likert-scale) responses (i.e., from 'strongly agree' to 'strongly disagree'). The final (third) section asks project outputs such as cost, schedule, and capacity. In the questionnaire, for the terms marked with an *asterisk* (*), additional description is available in the Appendix.

The questionnaire is designed to be **completed by members of the project's management team**. If you are a member of this team, please answer the following questions to the best of your ability. If you are unable to answer a particular question, leave it blank and move to the next question. Remember, some of these questions are intentionally subjective by design.

All data provided for the survey by participating individuals and organizations are considered confidential. These data will not be viewed by any party other than CII staff members.

You can review the CII Benchmarking Code of Conduct at the following site: <https://www.construction-institute.org/scriptcontent/bmm-code.cfm?section=bmm>

Should you have any questions about the 10-10 Performance Assessment Campaign, please contact Dr. Daniel Oliveira via e-mail (daniel.oliveira@cii.utexas.edu) or by phone at (512) 232-3050.

The Performance Assessment Committee thanks you for your participation in this very important industry initiative!

CII Performance Assessment Committee

I. General Information

Your Company Name:

Your Name:

Project Name:

Owner Company Name:

Project Construction Location: City: _____, (State or Province): _____, Country: _____

Lead Construction Contractor:

Lead Engineering Office Location: City: _____, (State or Province): _____, Country: _____

Lead Engineering Contractor:

Currency:

Unit System: () Imperial () Metric

Exchange Rate: 1 USD =

Midpoint of Actual Phase (Procurement) (mm/dd/yyyy)

Closest Cost Index Location: City: _____, (State or Province): _____, Country: _____

Project Type

- | | |
|--|---|
| <input type="checkbox"/> Airport | <input type="checkbox"/> Rail |
| <input type="checkbox"/> Electrical Distribution | <input type="checkbox"/> Tunneling |
| <input type="checkbox"/> Flood Control | <input type="checkbox"/> Water/Wastewater |
| <input type="checkbox"/> Highway | <input type="checkbox"/> Telecom, Wide Area Network |
| <input type="checkbox"/> Marine Facilities | <input type="checkbox"/> Pipeline |
| <input type="checkbox"/> Central Utility Plant (CUP) | <input type="checkbox"/> Tank Farms |
| <input type="checkbox"/> Process Control | <input type="checkbox"/> Gas Distribution |
| <input type="checkbox"/> Navigation | <input type="checkbox"/> Other Infrastructure |

Project Nature

Grass Roots, Greenfield ()	Brownfield (co-locate) ()	Addition, Expansion ()
Modernization, Renovation, Upgrade ()		

If project nature is brownfield or grassroots; did the project's design incorporate provisions for future expansion?

YES NO

If project nature is Addition or expansion or modernization, renovation, upgrade; did the existing facility's as-built condition include specific provisions for its addition, expansion, modernization, renovation or upgrade?

YES NO

Project Delivery Method

<input type="checkbox"/>	Design-Bid-Build	Serial sequence of design and construction phases: owner contracts separately with designer and constructor.
<input type="checkbox"/>	Design-Build (EPC)	Owner contracts with Design-Build (EPC) contractor.
<input type="checkbox"/>	CM at Risk	Owner contracts with designers and construction manager (CM). CM holds the contracts.
<input type="checkbox"/>	Parallel Primes	Owner contracts separately with designer and multiple prime constructors.

[Contractor Only] Which phase(s) did your company participate in on this project? (check all that apply)

FEP Engineering Procurement Construction Commissioning

Project Description

Please briefly describe this project (i.e., what does the facility produce (?), what is its scope (?))

- What was the average procurement team size (in FTE) and the maximum procurement team size (in FTE)?

Ave. Team Size (in FTE)		Max. Team Size (in FTE)	
-------------------------	--	-------------------------	--

- What was the average project management team* size (in FTE)? What was the maximum project management team size (in FTE)?

Ave. Team Size (in FTE)		Max. Team Size (in FTE)	
-------------------------	--	-------------------------	--

- Did this project incorporate a concession agreement for the operation of the facility? YES NO

If yes, what was the base duration of concession agreement?

Years

- What is the service life of the facility?

Years

- What is the expected average annual maintenance cost?

\$

- The project delivery method and contract type were mandated by regulation(s). YES NO

II. Input Measures

1. Your Cumulative Years of Experience in Capital Projects: _____

2. Are you the Project Manager? YES NO

3. The complexity of this project was very high based on its (check all that apply):

<input type="checkbox"/> Size	<input type="checkbox"/> Schedule	<input type="checkbox"/> Contract strategy	<input type="checkbox"/> Diversity of project team
<input type="checkbox"/> Technology risks	<input type="checkbox"/> Process scope	<input type="checkbox"/> Supply chain reliability	<input type="checkbox"/> External stakeholders
<input type="checkbox"/> Traffic control	<input type="checkbox"/> Location	<input type="checkbox"/> Work zone congestion	
Other (specify): _____			

4. Did the project objectives change during Procurement?

Yes (<u>Major</u> Change)	Yes (<u>Minor</u> Change)	No
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. This project experienced a high number of (please check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Scope change / creep | <input type="checkbox"/> Project development changes |
| <input type="checkbox"/> Deviation notices | <input type="checkbox"/> Non-conformance reports |
| <input type="checkbox"/> Major equipment* list changes | <input type="checkbox"/> Program changes |

6. Please characterize how project meetings were conducted (check all that apply).

- Including appropriate representation of stakeholders, i.e., the 'right' people are present
- Effective mechanisms for resolving project related issues (as measured by pre-planning, time, content, documentation, follow-up, etc.)
- Occurring with a frequency that meets the project's needs
- Having meaningful output that justifies my time investment.

7. Which of the following statements characterized the decisions made by the manager(s) of this project? (check all that apply).

- Considered final and not revisited
- Collaborative and inclusive
- Made at the lowest appropriate level in the organization
- Communicated promptly to the team
- Made in a timely and effective manner
- Consistent with the delegation of authority

8. Was a life cycle cost analysis completed for this project? YES NO

If yes, which of the following were considered? (please check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Carbon Footprint Measurement | <input type="checkbox"/> Energy Optimization |
| <input type="checkbox"/> Waste Minimization | <input type="checkbox"/> Sustainability Certification |

	Strongly Disagree		Neutral		Strongly Agree
9. The owner level of involvement was appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Preferred suppliers were used effectively to streamline the Procurement process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The project team members were familiar with the project execution plan (PEP) and they used it to manage their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The project objective and priorities were clearly defined.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The Procurement plan adapted to changing market conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The materials management plan for this project appropriately addressed elements such as project goals, responsibility, cost & schedule, and transportation & logistics.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The equipment procurement and vendor schedules were not a significant challenge for this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. A formal Commissioning execution plan including operations and maintenance philosophy was incorporated in Procurement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Sustainability was an important consideration for the Procurement phase of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. The Procurement plan addressed local content requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Appropriate contingencies were established to address materials and labor cost escalation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Project management team* members were clear about their roles and how to work with others on the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Project team members had the authority necessary to do their jobs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. The project team including project manager(s) had skills and experiences with similar projects / processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. People on this project worked effectively as a team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. The project experienced a minimum number of project management team* personnel changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. The interfaces between project stakeholders were well managed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Key project team members understood the owner's goals and objectives of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. All of the necessary, relevant project team members were involved in an effective risk identification and management process for Procurement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Project leaders recognized and rewarded outstanding personnel and results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
29. Leadership effectively communicated organizational objectives, priorities, and project goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Resources were allocated according to project priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Project leaders were open to hearing "bad news", and they wanted input from project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. The key stakeholders (owner, design, vendors and suppliers) were fully aligned during Procurement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Project team members had the information they needed to do their jobs effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Plan and progress including changes were communicated clearly and frequently amongst project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. A high degree of trust, respect and transparency existed amongst organizations working on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. The project's Commissioning objectives were appropriately communicated to the relevant project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. The project's work processes and systems (e.g., document management, project controls, business and financial systems) supported project success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. When issues arose, there were effective mechanisms to ensure they were resolved.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. The project encountered few problems associated with the late delivery of equipment and bulk materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Site materials management was effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Major equipment* was delivered complete and on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Risks were appropriately allocated through effective purchasing agreements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. This project implemented a supplier quality surveillance program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. The project control system was effective in monitoring project progress in terms of cost, schedule, and scope.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. A dedicated process was used to proactively manage change on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. A formal project Quality Management System was used for the Procurement of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. The project team members attended sufficient professional training directly related to their work in Procurement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. The customer was satisfied with the Procurement phase deliverables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree	Neutral	Strongly Agree
49. The cost of quality was determined during the Procurement phase of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. The acquisition of land and/or Right of Way (ROW) proceeded according to plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. The initial site and/or existing facility conditions were fully verified for the deliverables of this phase.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. All applicable national, regional, and local compliance requirements were well defined and understood by all relevant project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Effective cooperation and coordination existed amongst the companies and regulatory agencies involved in this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Output Measures

1. How many vendors and suppliers were awarded purchase orders?

2. What was the total number of purchase orders awarded?

3. Please provide the total number of major equipment*.

 piece count

4. Please provide the total cost of major equipment*.

 \$

5. Please provide the estimated and actual phase (Procurement) start and end dates

Estimated Schedule (mm/dd/yyyy)		Actual Schedule (mm/dd/yyyy)	
Start	Stop	Start	Stop

6. Please provide the *forecasted* total project cost and duration.

 Cost: \$

 Duration: weeks

7. What is the *forecasted* capacity of the facility?

Capacity	Unit (e.g., tons/day, BOE/day)	
	Capacity	



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10-10 Program – Construction Questionnaire

Infrastructure Projects

Instructions

This questionnaire is for the Construction phase. The Construction phase begins with the **commencement of foundations or driving piles**. It concludes at **mechanical completion**.

Each questionnaire includes three sections. The first section focuses on general project information such as project location, nature, and selected delivery method. The second section addresses input measures by asking various types of questions such as those requiring yes/no and sliding-scale (Likert-scale) responses (i.e., from 'strongly agree' to 'strongly disagree'). The final (third) section asks project outputs such as cost, schedule, and capacity. In the questionnaire, for the terms marked with an *asterisk* (*), additional description is available in the Appendix.

The questionnaire is designed to be **completed by members of the project's management team**. If you are a member of this team, please answer the following questions to the best of your ability. If you are unable to answer a particular question, leave it blank and move to the next question. Remember, some of these questions are intentionally subjective by design.

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The Performance Assessment Committee thanks you for your participation in this very important industry initiative!

CII Performance Assessment Committee

I. General Information

Your Company Name:

Your Name:

Project Name:

Owner Company Name:

Project Construction Location: City: _____, (State or Province): _____, Country: _____

Lead Construction Contractor:

Lead Engineering Office

Location: City: _____, (State or Province): _____, Country: _____

Lead Engineering Contractor:

Currency:

Unit System: () Imperial () Metric

Exchange Rate: 1 USD =

Midpoint of Actual Phase (Construction) (mm/dd/yyyy)

Closest Cost Index Location: City: _____, (State or Province): _____, Country: _____

Project Type

- | | |
|--|---|
| <input type="checkbox"/> Airport | <input type="checkbox"/> Rail |
| <input type="checkbox"/> Electrical Distribution | <input type="checkbox"/> Tunneling |
| <input type="checkbox"/> Flood Control | <input type="checkbox"/> Water/Wastewater |
| <input type="checkbox"/> Highway | <input type="checkbox"/> Telecom, Wide Area Network |
| <input type="checkbox"/> Marine Facilities | <input type="checkbox"/> Pipeline |
| <input type="checkbox"/> Central Utility Plant (CUP) | <input type="checkbox"/> Tank Farms |
| <input type="checkbox"/> Process Control | <input type="checkbox"/> Gas Distribution |
| <input type="checkbox"/> Navigation | <input type="checkbox"/> Other Infrastructure |

Project Nature

Grass Roots, Greenfield ()	Brownfield (co-locate) ()	Addition, Expansion ()
Modernization, Renovation, Upgrade ()		

If project nature is brownfield or grassroots; did the project's design incorporate provisions for future expansion?

YES NO

If project nature is Addition or expansion or modernization, renovation, upgrade; did the existing facility's as-built condition include specific provisions for its addition, expansion, modernization, renovation or upgrade?

YES NO

Project Delivery Method

<input type="checkbox"/>	Design-Bid-Build	Serial sequence of design and construction phases: owner contracts separately with designer and constructor.
<input type="checkbox"/>	Design-Build (EPC)	Owner contracts with Design-Build (EPC) contractor.
<input type="checkbox"/>	CM at Risk	Owner contracts with designers and construction manager (CM). CM holds the contracts.
<input type="checkbox"/>	Parallel Primes	Owner contracts separately with designer and multiple prime constructors.

Primary Contract Type for Detail Design / Engineering

<input type="checkbox"/>	Lump Sum	<input type="checkbox"/>	Unit Price
<input type="checkbox"/>	Cost Reimbursable	<input type="checkbox"/>	Guaranteed Maximum Price (GMP)

[Contractor Only] Which phase(s) did your company participate in on this project? (check all that apply)

FEP Engineering Procurement Construction Commissioning

Project Description

Please briefly describe this project (i.e., what does the facility produce (?), what is its scope (?))

- What was the average project management team* size (in FTE)? What was the maximum project management team size (in FTE)?

Ave. Team Size (in FTE)		Max. Team Size (in FTE)	
-------------------------	--	-------------------------	--

- What was the typical foreman to craft ratio?

≤ 5:1	6:1 ~ 8:1	9:1 ~ 12:1	≥13:1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Overall how many workers per safety professional were typically (i.e., in terms of the average workforce) on site?

1 : 20	1 : 21-40	1 : 41-60	1 : 61-100	1: over 101
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Did this project incorporate a concession agreement for the operation of the facility? YES NO
If yes, what was the base duration of concession agreement?

 Years

- What is the service life of the facility?
 Years
- What is the expected average annual maintenance cost?
 \$
- The project delivery method and contract type were mandated by regulation(s). YES NO

II. Input Measures

1. Your Cumulative Years of Experience in Capital Projects: _____

2. Are you the Project Manager? YES NO

3. The complexity of this project was very high based on its (check all that apply):

<input type="checkbox"/> Size	<input type="checkbox"/> Schedule	<input type="checkbox"/> Contract strategy	<input type="checkbox"/> Diversity of project team
<input type="checkbox"/> Technology risks	<input type="checkbox"/> Process scope	<input type="checkbox"/> Supply chain reliability	<input type="checkbox"/> External stakeholders
<input type="checkbox"/> Traffic control	<input type="checkbox"/> Location	<input type="checkbox"/> Work zone congestion	
Other (specify): _____			

4. Did the project objectives change during Construction?

Yes (<u>Major</u> Change)	Yes (<u>Minor</u> Change)	No
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. This project experienced a high number of (please check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Scope change / creep | <input type="checkbox"/> Project development changes |
| <input type="checkbox"/> Deviation notices | <input type="checkbox"/> Non-conformance reports |
| <input type="checkbox"/> Major equipment* list changes | <input type="checkbox"/> Program changes |

6. Was a turnaround involved in the scope of this project? YES NO

(If yes) Construction was well integrated with the turnaround.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Please characterize how project meetings were conducted (check all that apply).

- Including appropriate representation of stakeholders, i.e., the 'right' people are present
- Effective mechanisms for resolving project related issues (as measured by pre-planning, time, content, documentation, follow-up, etc.)
- Occurring with a frequency that meets the project's needs
- Having meaningful output that justifies my time investment.

8. Which of the following statements characterized the decisions made by the manager(s) of this project? (check all that apply).

- Considered final and not revisited
- Collaborative and inclusive
- Made at the lowest appropriate level in the organization
- Communicated promptly to the team
- Made in a timely and effective manner
- Consistent with the delegation of authority

9. This project used the following methods (please check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> Plan Percent Complete | <input type="checkbox"/> Workface Planning/Last Planner |
| <input type="checkbox"/> Work Packaging | <input type="checkbox"/> Subcontractor Prequalification |
| <input type="checkbox"/> Ongoing Craft Training Programs | <input type="checkbox"/> Substance Abuse Testing |
| <input type="checkbox"/> Preassembly* | <input type="checkbox"/> Prefabrication* |
| <input type="checkbox"/> Modularization* | <input type="checkbox"/> Offsite Fabrication* |

10. Formal (classroom) safety training was attended:

Monthly	Quarterly	Annually	Initial/once	Never
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Was there a formal new hire safety orientation process? YES NO

Did an owner representative participate in the orientation? YES NO

	Yes	No
11. Did the original primary contractor(s) complete the project?	<input type="checkbox"/>	<input type="checkbox"/>
12. Was safety performance a criterion for contractor and subcontractor selection?	<input type="checkbox"/>	<input type="checkbox"/>
13. Were safety toolbox meetings held daily?	<input type="checkbox"/>	<input type="checkbox"/>
14. Were accidents including near misses formally investigated?	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
15. The availability and competency of craft labor was adequate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The owner level of involvement was appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The owner and primary contractor(s) maintain a long-standing partnering arrangement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. The project team members were familiar with the project execution plan (PEP) and they used it to manage their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
19. A formal Commissioning execution plan including operations and maintenance philosophy was incorporated in Construction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The work planning and scheduling processes were effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Project cash flow was managed well during Construction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. The Construction execution plan addressed community relations issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. The project team including project manager(s) had skills and experiences with similar projects / processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. The project experienced a minimum number of project management team* personnel changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. All of the necessary, relevant project team members were involved in an effective risk identification and management process for Construction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Project safety procedures were well defined and strictly followed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Project management team* members were clear about their roles and how to work with others on the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Subcontractors provided the majority of the Construction craft workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. People on this project worked effectively as a team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Key project team members understood the owner's goals and objectives of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. The interfaces between project stakeholders were well managed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Engineering deliverables were released in a timely manner and in a proper sequence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Project team members had the authority necessary to do their jobs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. This project experienced a minimum amount of labor disruption.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. The owner and primary contractor(s) maintained positive working relationships.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Leadership effectively communicated organizational objectives, priorities, and project goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. The key stakeholders (owner, design, vendors and suppliers) were fully aligned during Construction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Project leaders were open to hearing "bad news", and they wanted input from project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Plan and progress including changes were communicated clearly and frequently amongst project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
40. The project's Commissioning objectives were appropriately communicated to the relevant project team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Resources were allocated according to project priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. A high degree of trust, respect and transparency existed amongst organizations working on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. The project's work processes and systems (e.g., document management, project controls, business and financial systems) supported project success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. Project team members had the information they needed to do their jobs effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Project leaders recognized and rewarded outstanding personnel and results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. The Engineering deliverables were complete and accurate (possessing a minimal amount of errors and omissions).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. When issues arose, there were effective mechanisms to ensure they were resolved.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. The project encountered few problems associated with the late delivery of equipment and bulk materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. A dedicated process was used to proactively manage change on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. A formal project Quality Management System was used on this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. Site materials management was effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. The project employed regular safety audits or observations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Materials and equipment were typically received on time, without damage, and per design specification.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. The project team members attended sufficient professional training directly related to their work in Construction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. The customer was satisfied with the Construction phase deliverables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. The cost of quality was determined during the Construction phase of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. Sustainability was an important consideration for the Construction phase of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. The acquisition of land and/or Right of Way (ROW) proceeded according to plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59. Key stakeholders including the public were properly identified and involved during Construction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60. The initial site and/or existing facility conditions were fully verified for the deliverables of this phase.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree	Neutral	Strongly Agree
61. All applicable national, regional, and local compliance requirements were well defined and understood by all relevant project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62. Effective cooperation and coordination existed amongst the companies and regulatory agencies involved in this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Output Measures

1. Please provide the *forecasted* total project cost and duration.

Cost: \$	Duration: weeks
----------	-----------------

2. Please provide the estimated and actual phase (Construction) start and end dates

Estimated Schedule (mm/dd/yyyy)		Actual Schedule (mm/dd/yyyy)	
Start	Stop	Start	Stop

3. Please provide the total number of major equipment*.

piece count

4. Please provide the number of cases.

Medical Treatment	()
Days Away	()
Job Restriction or Transfer	()

5. What was the average and peak Construction craft workforce?

Ave. Craft Workforce		Max./Peak Craft Workforce	
----------------------	--	---------------------------	--

6. Excluding the major equipment* cost, please provide the estimated and actual phase (Construction) cost.

Estimated Cost (\$)	Actual Cost (\$)

7. What is the forecasted capacity of the facility?

Capacity	Unit (e.g., lane-miles, diameter-in./km)	
	Capacity	

8. What was the total number of Construction work hours?

hours

9. Please provide the IFC (Issued for Construction) quantities.

Total Concrete	()	cy
Total Structural Steel	()	ton
Total Wire and Cable	()	lf
Total Piping	()	lf
Total Equipment	()	ton
Instrumentation	()	I/O counts



The Knowledge Leader for Project Success

Owners • Contractors • Academics

10-10 Program – Commissioning Questionnaire

Infrastructure Projects

Instructions

This questionnaire is for the Commissioning phase. The Commissioning phase begins at **mechanical completion** and concludes with **custody transfer to user/operator** for steady state operation.

Each questionnaire includes three sections. The first section focuses on general project information such as project location, nature, and selected delivery method. The second section addresses input measures by asking various types of questions such as those requiring yes/no and sliding-scale (Likert-scale) responses (i.e., from 'strongly agree' to 'strongly disagree'). The final (third) section asks project outputs such as cost, schedule, and capacity. In the questionnaire, for the terms marked with an *asterisk* (*), additional description is available in the Appendix.

The questionnaire is designed to be **completed by members of the project's management team or Commissioning team**. If you are a member of one of these teams, please answer the following questions to the best of your ability. If you are unable to answer a particular question, leave it blank and move to the next question. Remember, some of these questions are intentionally subjective by design.

All data provided for the survey by participating individuals and organizations are considered confidential. These data will not be viewed by any party other than CII staff members.

You can review the CII Benchmarking Code of Conduct at the following site: <https://www.construction-institute.org/scriptcontent/bmm-code.cfm?section=bmm>

Should you have any questions about the 10-10 Performance Assessment Campaign, please contact Dr. Daniel Oliveira via e-mail (daniel.oliveira@cii.utexas.edu) or by phone at (512) 232-3050.

The Performance Assessment Committee thanks you for your participation in this very important industry initiative!

CII Performance Assessment Committee

I. General Information

Your Company Name:

Your Name:

Project Name:

Owner Company Name:

Project Construction Location: City: _____, (State or Province): _____, Country: _____

Lead Construction Contractor:

Lead Engineering Office

Location: City: _____, (State or Province): _____, Country: _____

Lead Engineering Contractor:

Currency:

Unit System: () Imperial () Metric

Exchange Rate: 1 USD =

Midpoint of Actual Phase (Commissioning) (mm/dd/yyyy)

Closest Cost Index Location: City: _____, (State or Province): _____, Country: _____

Project Type

- | | |
|--|---|
| <input type="checkbox"/> Airport | <input type="checkbox"/> Rail |
| <input type="checkbox"/> Electrical Distribution | <input type="checkbox"/> Tunneling |
| <input type="checkbox"/> Flood Control | <input type="checkbox"/> Water/Wastewater |
| <input type="checkbox"/> Highway | <input type="checkbox"/> Telecom, Wide Area Network |
| <input type="checkbox"/> Marine Facilities | <input type="checkbox"/> Pipeline |
| <input type="checkbox"/> Central Utility Plant (CUP) | <input type="checkbox"/> Tank Farms |
| <input type="checkbox"/> Process Control | <input type="checkbox"/> Gas Distribution |
| <input type="checkbox"/> Navigation | <input type="checkbox"/> Other Infrastructure |

Project Nature

Grass Roots, Greenfield ()	Brownfield (co-locate) ()	Addition, Expansion ()
Modernization, Renovation, Upgrade ()		

If project nature is brownfield or grassroots; did the project's design incorporate provisions for future expansion?

YES NO

If project nature is Addition or expansion or modernization, renovation, upgrade; did the existing facility's as-built condition include specific provisions for its addition, expansion, modernization, renovation or upgrade?

YES NO

Project Delivery Method

<input type="checkbox"/>	Design-Bid-Build	Serial sequence of design and construction phases: owner contracts separately with designer and constructor.
<input type="checkbox"/>	Design-Build (EPC)	Owner contracts with Design-Build (EPC) contractor.
<input type="checkbox"/>	CM at Risk	Owner contracts with designers and construction manager (CM). CM holds the contracts.
<input type="checkbox"/>	Parallel Primes	Owner contracts separately with designer and multiple prime constructors.

[Contractor Only] Which phase(s) did your company participate in on this project? (check all that apply)

FEP Engineering Procurement Construction Commissioning

Project Description

Please briefly describe this project (i.e., what does the facility produce (?), what is its scope (?))

- What was the average Commissioning management team* size (in FTE)?

Ave. Team Size (in FTE)	<input type="text"/>
-------------------------	----------------------

- Did this project incorporate a concession agreement for the operation of the facility? YES NO
If yes, what was the base duration of concession agreement?

<input type="text"/>	Years
----------------------	-------

- What is the service life of the facility?

<input type="text"/>	Years
----------------------	-------

- What is the expected average annual maintenance cost?

\$ <input type="text"/>

- The project delivery method and contract type were mandated by regulation(s). YES NO

II. Input Measures

1. Your Cumulative Years of Experience in Capital Projects: _____

2. Are you the Project Manager? YES NO

3. The complexity of this project was very high based on its (check all that apply):

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> Size | <input type="checkbox"/> Schedule | <input type="checkbox"/> Contract strategy | <input type="checkbox"/> Diversity of project team |
| <input type="checkbox"/> Technology risks | <input type="checkbox"/> Process scope | <input type="checkbox"/> Supply chain reliability | <input type="checkbox"/> External stakeholders |
| <input type="checkbox"/> Traffic control | <input type="checkbox"/> Location | <input type="checkbox"/> Work zone congestion | |

Other (specify): _____

4. Was a turnaround involved in the scope of this project? YES NO

(If yes) Commissioning was well integrated with the turnaround.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Please characterize how project meetings were conducted (check all that apply).

- Including appropriate representation of stakeholders, i.e., the 'right' people are present
- Effective mechanisms for resolving project related issues (as measured by pre-planning, time, content, documentation, follow-up, etc.)
- Occurring with a frequency that meets the project's needs
- Having meaningful output that justifies my time investment.

6. Which of the following statements characterized the decisions made by the manager(s) of this project? (check all that apply).

- Considered final and not revisited
- Collaborative and inclusive
- Made at the lowest appropriate level in the organization
- Communicated promptly to the team
- Made in a timely and effective manner
- Consistent with the delegation of authority

	Yes	No
7. Was there a written, Commissioning-specific safety plan for this project?	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
8. The owner level of involvement was appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. A formal Commissioning execution plan including the impact to operations and maintenance was implemented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The Commissioning planning and scheduling processes were effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The Commissioning plan addressed community relations issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The Commissioning team had skills and experiences with similar projects / processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The project experienced a minimum number of Commissioning team personnel changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. All of the necessary, relevant Commissioning team members were involved in an effective risk identification and management process for Commissioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Commissioning management team* members were clear about their roles and how to work with others during Commissioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. People on this project worked effectively as a team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Key Commissioning management team* members understood the owner's goals and objectives of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Commissioning management team* members had the authority necessary to do their jobs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Leadership effectively communicated Commissioning goals and priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The key stakeholders were fully aligned before and during Commissioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Commissioning leaders were open to hearing "bad news", and they wanted input from Commissioning team members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Plan and progress including changes were communicated clearly and frequently amongst project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. The project team members were familiar with the Commissioning plan and they used it to manage their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Resources were allocated according to Commissioning priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. A high degree of trust, respect and transparency existed amongst organizations working on this project during Commissioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. The Commissioning processes and systems supported project success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Commissioning management team* members had the information they needed to do their jobs effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree		Neutral		Strongly Agree
28. Project leaders recognized and rewarded outstanding personnel and results during Commissioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. The Commissioning process achieved the operability and product quality objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. When issues arose, there were effective mechanisms to ensure they were resolved.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. A dedicated process was used to proactively manage change during Commissioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. The project's Commissioning processes were explicitly defined, managed, measured, and controlled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. The Commissioning management team* members attended sufficient professional training directly related to their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. The customer was satisfied with the Commissioning phase deliverables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. The cost of quality was monitored during the Commissioning of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Sustainability was an important consideration for the Commissioning phase of this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. The project's process safety objectives were appropriately communicated amongst the relevant Commissioning management team* members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Commissioning safety procedures were well defined and strictly followed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Pre-task planning (including safety) was regularly conducted by foremen and/or other Commissioning managers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Key stakeholders including the public were properly identified and involved during Commissioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. The initial site and/or existing facility conditions were fully verified for the deliverables of this phase.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. All applicable national, regional, and local compliance requirements were well defined and understood by all relevant project stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Effective cooperation and coordination existed amongst the companies and regulatory agencies involved in this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Output Measures

1. Please provide the actual total project cost and duration.

Cost: \$

Duration: weeks

2. Please provide the total number of major equipment*.

piece count

3. Please provide the estimated and actual phase (Commissioning) start and end dates

Estimated Schedule (mm/dd/yyyy)		Actual Schedule (mm/dd/yyyy)	
Start	Stop	Start	Stop
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

4. Please provide the estimated and actual phase (Commissioning) cost.

Estimated Cost (\$)	Actual Cost (\$)
<input type="text"/>	<input type="text"/>

5. What is the actual capacity of the facility?

Capacity	Unit (e.g., tons/day, BOE/day)	<input type="text"/>
	Capacity	<input type="text"/>

When Commissioning was complete, what percentage of capacity was achieved?

%

6. What was the total number of Commissioning work hours?

hours