# [1. FRONT-END PLANNING: BREAK THE RULES, PAY THE PRICE (RS213-1)](https://www.construction-institute.org/front-end-planning-break-the-rules-pay-the-price)

**Report Summary:** Front-end planning is often considered the single most important and valuable process in a capital project life cycle. Also known by such terms as pre-project planning and front-end loading, front-end planning represents the critical underpinning to any capital project. It is focused on a strong, early link among the business or mission need, project strategy, scope, cost, and schedule, and maintaining that link throughout the project life cycle. Front-end planning mainly covers three subphases: feasibility, concept, and detailed scope.

Upfront investment is required for front-end planning, but the resultant savings are more than worth the investment. The critical steps for front-end planning are as follows:

* Develop and consistently follow a defined front-end planning process.
* Ensure adequate scope definition prior to moving forward with design and construction.
* Use front-end planning tools.
* Define existing conditions thoroughly.
* Select the proper contracting strategy early.
* Align the project team, including key stakeholders.
* Build the project team, including owner stakeholders and consultants.
* Involve both owners and contractors.
* Staff critical project scoping and design areas with capable and experienced personnel.
* Identify and understand risks of new project types, technologies, and/or locations.
* Address labor force skill and availability during planning.
* Provide leadership at all levels for the front-end planning process, including executive and project leadership as well as owner and contractor leadership.

**Key Takeaways:**

## (1) Identify the following typical cost elements during the front-end planning phase.

## (Project Phase: Prefeasibility through Turnover)

* Planning team personnel expenses
* Conceptual and detailed design costs
* Consultant fees and expenses
* Environmental permitting costs
* Project manager/construction manager fees
* Licensor fees

## (2) Determine the following typical activities and products of front-end planning.

## (Project Phase: Prefeasibility through Turnover)

* Option analysis
* Scope definition and boundaries
* Life-cycle cost analysis
* Cost and schedule estimate
* Site investigation
* Environmental analysis
* Process design basis
* Initial equipment design
* Space planning, including room data sheets and stacking diagrams
* Site layout
* Project execution approach, including project control plan
* Procurement plan
* Architectural renderings
* Appropriation submittal package

## (3) Develop and consistently follow a defined front-end planning process.

## (Project Phase: Prefeasibility through Turnover)

* Establish a structured front-end planning process that guides the organization through various planning efforts.
* Create checklists to ensure that all necessary steps are taken during each phase of the planning process.
* Conduct regular gate checks to provide defined deliverables and track progress against project goals.
* Facilitate front-end planning techniques, such as charter development, partnering, scope definition, stakeholder identification, and alignment.
* Incorporate a well-defined front-end planning process into the organization's standard operating procedures.

## (4) Use front-end planning tools.

## (Project Phase: Prefeasibility through Turnover)

* Utilize the Project Definition Rating Index (PDRI) to aid in defining the project scope and to ensure that project elements are well-defined.
* Implement a structured process that includes checklists and gate-checks to guide the organization through various planning efforts.
* Leverage stakeholder identification and partnering tools to facilitate effective communication among all parties involved in the project.
* Apply technical scope identification tools to ensure the clear understanding of the project’s goals, objectives, and roles for all stakeholders.
* Conduct thorough front-end planning using a gated process that includes reviews and approvals at each stage to prevent costly rework later.

## (5) Address labor force skill and availability during planning.

## (Project Phase: Prefeasibility through Turnover)

* Conduct a thorough analysis of local labor market conditions to identify potential shortages or surpluses.
* Engage with contractors and suppliers to gather information about their anticipated workforce needs and any concerns they may have about labor availability.
* Develop contingency plans for addressing potential labor force skill gaps, such as training programs or recruitment strategies.
* Incorporate contract clauses that address labor issues, including provisions for labor shortages or surpluses.
* Conduct area labor surveys to gain a better understanding of local labor market conditions and identify areas where additional support may be needed.

## (6) Provide leadership at all levels for the front-end planning process, including executive and project owner and contractor.

## (Project Phase: Prefeasibility through Turnover)

* Establish a dedicated team to oversee the front-end planning process.
* Appoint an executive sponsor to champion the importance of effective front-end planning.
* Ensure that project managers are trained in front-end planning best practices and are empowered to lead the process.
* Develop clear communication channels with contractors to ensure seamless collaboration during front-end planning.
* Conduct regular progress updates and reviews to monitor the effectiveness of the front-end planning process.

## [(7) Tool: Front End Planning Toolkit 2014.1 (IR213-2)](https://www.construction-institute.org/front-end-planning-toolkit-2014-1)

## (Project Phase: Prefeasibility through Turnover)

* Define front-end planning as developing strategic information to address risk and to commit resources for project success.
* Indicate that well-performed front-end planning can reduce costs, minimize variability, and increase the likelihood of meeting environmental and social goals.
* Identify the correlation between percent design completed and project success at the end of the front-end planning process.
* Recognize alignment during pre-project planning as an important factor in successful front-end planning.
* Identify schedule and budget limitations, as well as business stakeholders’ views on front-end planning, as barriers to its implementation.

## (8) Refer to 2. Alignment and 14. Project Risk Assessment for other golden nuggets in this report.

## (Project Phase: Prefeasibility through Turnover)