



# Lifecycle of a transportation project

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Planning >> Environmental analysis >> Engineering >> Design >> Property acquisition >> Construction >> Testing >> Service begins

Ever wonder why it takes so long to build a transportation project? Years of planning, engineering and analysis goes into advancing major public projects from idea to reality. Here are some of the steps:

## Corridor Planning (2-3 years)

Conceptual design answers two basic questions: “What areas will it serve; What type of transportation technology best suits that area?” Sound Transit’s goal is to link employment centers and other regional destinations with high capacity transit.

During this stage:

- The analysis typically looks at several routes (lines on a map) and technologies (bus, elevated rail, subway, etc.).
- The agency meets with stakeholders and community groups, elected officials, and other members of the public to hear comments on the proposed route and technology.
- If voter approval of the funding is needed, this is when voters are typically asked to fund the project.

## Environmental Review (2-3 years)

During this period the environmental analysis – usually an Environmental Impact Statement (EIS) is prepared. The goal is to identify several alternatives, evaluate their advantages and disadvantages, and choose a preferred alternative to take through final design. The public influences the stations and route through public workshops and written comments.

- During the first phase of an EIS, called “scoping,” the agency identifies the alternatives and the impacts to be analyzed.
- The agency prepares and publishes a Draft Environmental Impact Statement (DEIS) that includes a detailed description and thorough analysis of several types of environmental, social, transportation and economic impacts for each alternative.
- Conceptual design and engineering is completed for all the alternatives studied in the EIS.
- The Sound Transit Board chooses a preferred alternative – the project that will eventually be built.

- Preliminary engineering is completed for the preferred alternative.
- All comments received during this period are recorded. The agency prepares responses and includes them in the Final EIS.

## Final Design/Property Acquisition (2-3 years)

In final design, project architects and engineers define what the stations will look like and determine the technical specifications for the stations and tracks.

During this stage:

- Large projects are divided into several smaller contract packages to encourage competition.
- Projects are broken into design milestones (30 percent, 60 percent and 90 percent). At each milestone, the agency seeks public input on the station design through open houses and written comments. The result is a collection of detailed construction documents that a contractor can use to build the project.
- The agency begins acquiring any private property and easements needed to build the project.

## Construction (5+ years)

Sound Transit and its contractor balance the need to complete the project on time and on budget while minimizing construction impacts on the surrounding community.

- Building large public infrastructure projects is technically challenging with numerous regulatory and other constraints.
- A number of external factors can slow a project, including labor disputes, material shortages, unforeseen site conditions, and weather.
- Especially complex or challenging projects, such as tunneling, can take much longer to complete (7+ years or more).

Sound Transit is committed to providing the public with accurate and timely notification of construction activities, and to working with impacted individuals to find solutions to problems.