



Transportation Systems/ Infrastructure Planning, Management and Regulations Pathway: **Water Mode**

Problem-based Scenario Outline

School Site: Ballard High School, Maritime Academy Seattle, Washington

Pathway Knowledge and Skill(s):

P05.1 Plan public transportation infrastructure
P05.4 Transportation management

Performance Element(s):

- Determine customer needs and requirements.
- Analyze information and determine most critical problems and opportunities for improvement.
- Develop final cruise terminal plan which includes piers, supplier access, parking, and safety concerns.
- Develop written business plan and individual reflective essay.
- Present final plan to business panel.
 - ◆ Describe and provide examples of the major types of customer requirements for transportation operations .
 - ◆ Describe the organization and structure of major functions and processes within the logistic departments for planning, building, and managing the cruise terminal infrastructure.
- Determine environmental requirements for building at Pier 90 facility.

Title: New Cruise Terminal

Completion Time: 4 weeks

Problem Statement: You are the transportation manager for Port of Seattle. In 1999, the Port completed its new Cruise Terminal at pier 66 in downtown Seattle. Already the terminal is at capacity and Seattle's new role, as a cruise terminal hub, shows no sign of slowing. To meet the demand of this new market, the port wants to convert one of the piers at the Pier 90 complex to accommodate modern cruise ships. Your job is to create a plan for a new terminal at Pier 90, and determine how crew, supplies, and customers will access the ships.

Occupations and Related Job Titles (*Examples*):

Business/Industry/Government Partner(s):

- Holland America Cruise Lines
- Norwegian Cruise Lines
- Port of Seattle
- Gray Line of Seattle
- Christensen Architects

Students: In groups, students must decide what the new terminal should look like, how the traffic to and from the ships will be routed, and how the terminal will connect with the existing traffic flow. Each group will write a business proposal, complete with drawings and/or models of the new terminal and create a PowerPoint presentation detailing their plan. The experts from our business partners will assist in assessing the student plans.

- Business report outlining plan for creating cruise terminal at Pier 90.
- Detailed budget for construction costs.
- 3D model of proposed terminal, either computer generated or cardboard.
- Presentation.
 - ◆ Using power point and digital camera – minimum of five slides with three images.

Required Materials and Resources:

- Computers
- Word processing and presentation software
- Aerial view/map of current configuration of Pier 90 and surrounding roadways/access
- Cardboard/building materials for scale-models of proposed terminal
- Computer with word processing/Power Point software
 - ◆ Projector for multimedia presentation
- (Optional) Rhino or AutoCad software to create 3D version of plans for new terminal

Suggested Assessment Approaches:

- Business report outlining plan for creating cruise terminal at Pier 90
 - Detailed budget for construction costs
 - 3D model of proposed terminal, either computer generated or cardboard
 - Presentation
 - ◆ Using power point and digital camera – minimum of five slides with three images
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Related Academic Skills:

Washington State Essential Academic Learning Requirements

- **Writing**: Students will use specialized vocabulary relevant to a specific content area; identify, analyze, describe, and meet the needs of the chosen audience; and produce a technical document for a career setting.
(EALR's 1.2, 2.1, 2.4)
- **Reading**: Students will integrate appropriate reading strategies to adapt reading to different types of text, summarize the main idea and supporting facts and details with evidence from reading, apply information gained from reading to give a response and express insight, organize information from resource materials and communicate findings effectively, and use appropriate reading strategies for interpreting technical and non-technical documents from career settings.
(EALR's 1.1, 1.3, 1.5, 2.1, 2.2, 2.3, 3.1, 3.2, 3.4, 4.3)
- **Communication**: Students will analyze and reflect on ideas while paying attention and listening in a variety of situations; make well-chosen and varied connections between own purposes and audience interests and needs; create a comprehensive and organized presentation with a clear sequencing of ideas and transitions; participate in a group to write, work toward consensus, propose solutions, and demonstrate results; and determine effective communication techniques in a career setting.
(EALR's 1.1, 2.1, 2.2, 3.2, 4.4)

