

# Final Purpose and Need

## Harmony Road Area Transportation Improvements Project

### Statement of Purpose

The purpose of this project is to improve the operation of Harmony Road and allow the corridor's transportation system to safely and efficiently accommodate existing and future travel.

### Statements of Need

- In 2005, the project area was estimated to have a population of 13,073 residents in 5,162 households and an employment base of 24,666 jobs. The study area population is anticipated to grow to 16,188 residents in 2030. In addition, by 2030, the number of jobs in the project study area is expected to increase by 43 percent.
- Harmony Road is a three lane major arterial carrying between 11,000 and 18,000 vehicles per day, which is nearing capacity.
- Three signalized intersections with Harmony Road are experiencing significant traffic congestion and vehicle queuing during peak hours. These Harmony Road intersections, Railroad Avenue/Linwood Avenue, Lake Road and 82nd Avenue, are currently operating at Levels of Service E, E, and D during the PM peak hours, respectively.
- Harmony Road is the primary access for both the Oregon Institute of Technology campus and Clackamas Community College satellite campus. Both institutions have plans to expand their facilities, including the college's 100,000-square foot, two-phased expansion by 2010.
- Harmony Road is a major arterial providing access to the Clackamas Regional Center (CRC). The adjacent Clackamas Town Center mall within the CRC is expected to expand a minimum 525,000 square feet of office space, 600 residential units, public plazas, and associated infrastructure.
- Adding to the congestion problem is the at-grade main Union Pacific (UP) rail line crossing near the Harmony Road/Railroad Avenue/Linwood Avenue intersection. There are approximately 6 passenger trains and 24 freight trains crossing at this location each day, resulting in traffic stoppages and delay with an average daily gate activation time of 150 minutes. About 20 of the train crossings occur during the day.
- The UP rail mainline is part of the federally designated High-Speed Rail Corridor from Vancouver, BC to Eugene, Oregon. With track upgrades, train speeds may reach up to 110 MPH (from the current 79 MPH). For safety and operational purposes, grade separation of the rail line and the roadway will likely be required to accommodate passenger and freight train service through this mainline corridor.
- The most common crash type along Harmony Road is a rear-end collision, with 40 incidents in the three-year period from 2003-2005. This type of collision typically results from stoppages of traffic due to excessive vehicle queuing and delay or lack of turn lanes.
- Inadequate and incomplete bicycle and pedestrian facilities reduce the connectivity and safety for bicyclists and pedestrians in the project study area.