

Yreka Creek Greenway Oberlin Road to Interstate 5 Design Elements

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Integration Into Existing Urban Setting: Existing development at the site includes various utilities systems (electrical, communications, water, sewer, propane, and storm drainage), transportation systems (Interstate 5, railroad tracks, and Oberlin Road, and commercial buildings. The greenway was integrated into this setting in such a way as to enhance and complement but not negatively impact existing development.

Floodplain Widening: Greenways provide an opportunity to at least partially restore floodplain function along urban streams while also achieving openspace and trail access goals. Restoration to historical conditions is usually not possible, however, due to development within the historic floodplain and downcutting of the stream channel. The pragmatic way to achieve partial floodplain restoration is to lower the grade of adjacent land along such streams. Where greenway corridors are relatively narrow, such as from Oberlin Road northward to the old mill bridge crossing, the grade is simply lowered to the point of creating a readily-accessible floodplain. Where wider corridors exist, such as from the old mill bridge crossing northward to Interstate 5, overflow berms and meandering overflow (secondary) channels can be incorporated. Restoring adequate floodplain function along urban streams is critical to reducing floods, maintaining fish and wildlife habitat, and providing quality openspace and trail benefits.

Nearby Spoils Disposal: Achieving floodplain widening by lowering the adjacent grade generates very large amounts of spoils. It is very costly to move this material, especially if the disposal site is far away. At the Oberlin site, spoils disposal was incorporated into adjacent commercial development, in which a building pad was created with the spoils. A hydrologic analysis was performed to ensure that the filled building pad did not impede the 100-year floodway. This method of spoils disposal greatly reduced greenway costs and simultaneously facilitated future greenway-compatible development. Side slopes of the created building pad were gently-sloped to minimize erosion and provide a softer and more natural-appearing backdrop to the greenway.

Trail Placement Within Floodplain: The greenway trail was placed within the floodplain to either maximize floodplain width within a laterally-constrained greenway corridor (as was the case from Oberlin Road northward to the old bridge crossing), or to place trail users close to the creek (as was the case from the old bridge crossing northward to Interstate 5). Along the narrow portion of the greenway, the trail was held to the far edge of the floodplain away from the creek, in order to protect the trail from erosive hydraulics that could still occur since the floodplain could only be partially widened. Along the wider portion of the greenway, the trail was placed on a creekside berm that resembles a natural berm that often forms along creeks. The adjacent wide overflow (secondary) channel will enable hydraulics to be dissipated, thereby protecting the trail from erosive forces. In both cases (narrow and wide greenway corridor), the trail will only be submerged during large storm events. The new trail bridge proposed at the old mill bridge site will be above the 100-year flood height in order to ensure that the bridge doesn't wash out. Trail crossings over the overflow (secondary) channels will consist of break-away boardwalks without railings, since hydraulic forces in these areas will not likely be strong

enough to damage the boardwalks.

Urban Runoff Treatment: Urban runoff from nearby development (including the new building pad) was intercepted by vegetated swales and overflow channels within the greenway to increase infiltration, filter out pollutants, and intercept sediment prior to entering Yreka Creek. Shallow sediment basins were included at the downstream ends of swales and overflow channels. An existing stormwater channel entering the newly created floodplain on the east side near the railroad tracks required boulder armoring to prevent erosion as it drops into the floodplain. Runoff from this channel and various swales enters newly-created overflow channels and usually soaks into the ground before reaching Yreka creek.

Stream Channel Protection, Restoration, and Enhancement: Yreka Creek channel was mostly avoided during floodplain widening and greenway build-out. Most shade-providing riparian trees along the streambanks were also avoided. The temporary stream crossing used for hauling spoils was constructed of spawning gravel that was spread out and left in the channel after construction activities were completed. The old mill bridge concrete abutments were removed, but in order to retain a large scour pool at the site of the abutments, rock vanes were installed to mimic the effects of the bridge abutments.

Wildlife Habitat Protection and Restoration: All low-lying riparian vegetation not in the way of floodplain widening was saved. Some non-native blackberry vines were removed, but others were temporarily retained to maintain interim streambank protection until newly-planted native vegetation becomes established. An existing beaver dam and lodge on the site were protected during construction activities. Large logs on the site were retained and scattered on the new floodplain to provide habitat diversity.

Trash and Debris Removal: Greenway construction provided an excellent opportunity to remove large quantities of concrete and asphalt debris, metal scraps, old tires, and other trash.