

Existing Campus and South Campus Expansion. Recently updated Municipal Comprehensive Plan affirmed the zoning and future land use boundaries that leave Landis Homes with a clear understanding that future growth beyond their current boundaries is not a likely option. These circumstances helped shape the decision making process as Landis Homes planned their South Campus Expansion project.



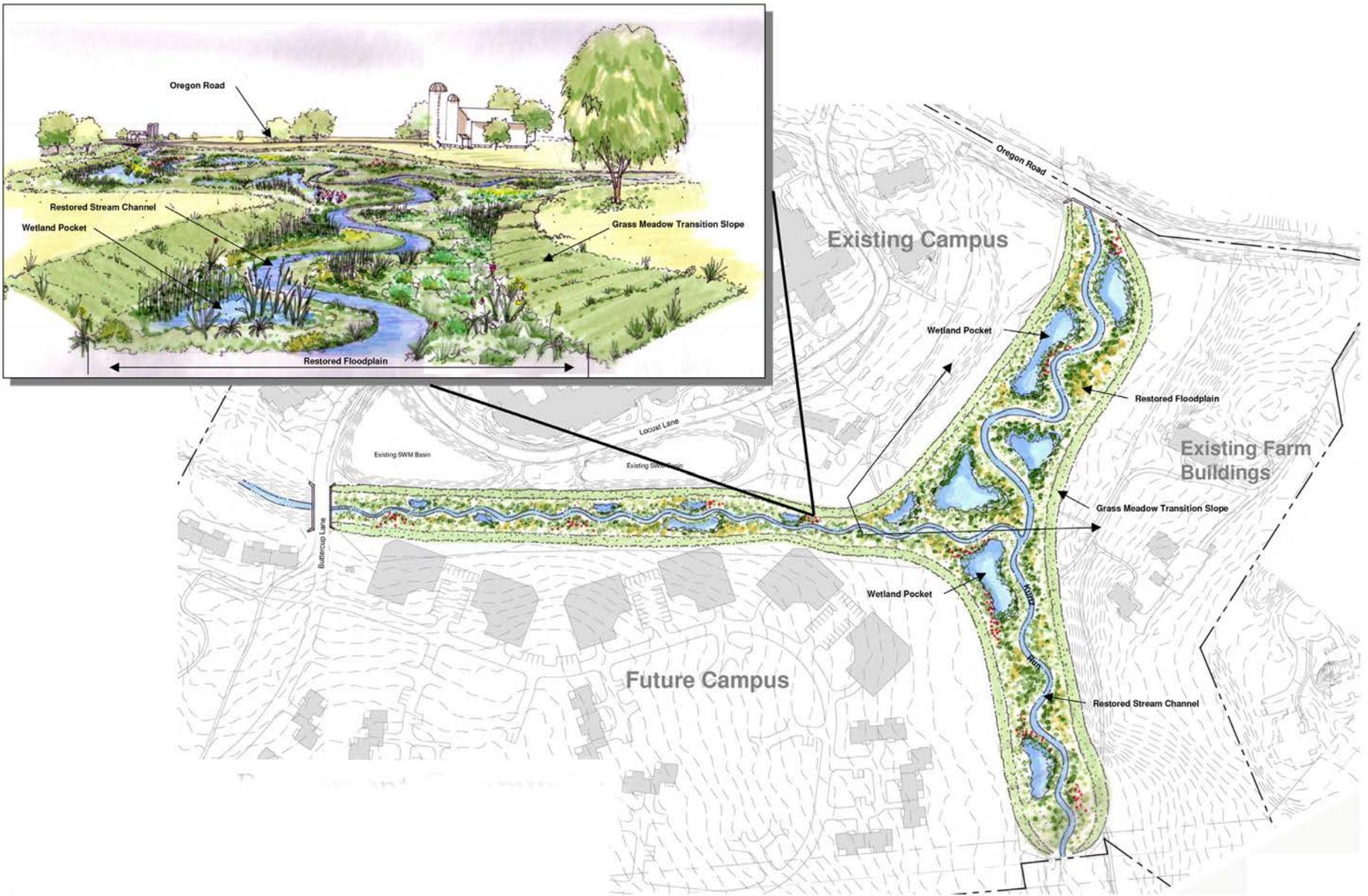
The master planning focused on the spatial arrangements and juxtaposition of buildings, the interconnectedness of open spaces, protection and preservation of natural resources, interaction and connections to the existing campus, and achieving the optimum use of available land.



Site design features integrated low impact development strategies that included porous paving and an interconnected system of rain gardens, bio-swales and water filtration facilities. Rain gardens and bio-retention basins contain species that thrive in both wet and dry conditions, adding a seasonal interest to the outdoor landscaping.



Porous Pavement Trail System. Porous asphalt with a stone subsurface infiltration bed was used in low-load areas of the site such as walkways and overflow parking.



The project restored 6.5 acres of floodplain which provides added stormwater storage volume and allows the elimination of conventional detention facilities. This will allow homes to be developed where traditional basins would otherwise be required.



Kurtz Run, a stream that runs through the eastern portion of the property which has been degraded by centuries of human activity such as timber harvesting, milling, and farming.



In August 2012, excavation began to remove more than 27,000 cubic yards (40,000 tons) of legacy sediment from the stream corridor.



The restoration effort addresses the challenges of new stormwater management regulations associated with the expansion of the continuing care retirement community.



Flood storage and reduction benefits, photo after Hurricane Sandy, illustrating the ability to attenuate storm flows and flood storage, significantly reducing erosion and damage.



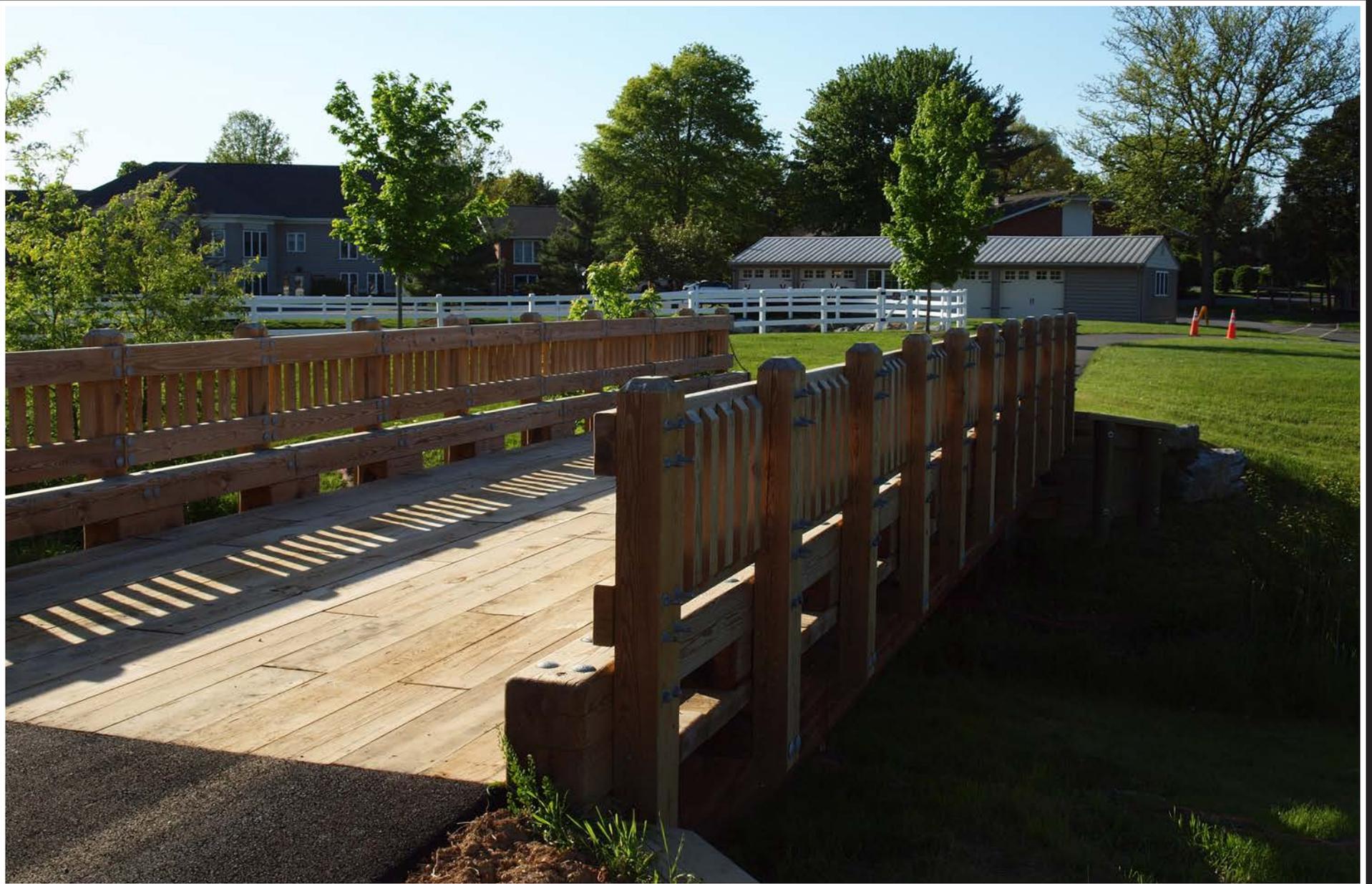
The floodplain restoration has provided the greatest environmental benefit by increasing water storage, creating 6.5 acres of wetlands, improved infiltration without increasing the potential for sinkholes, reduced streambank erosion, and increased filtration of runoff resulting in water quality benefits both on-site and downstream.



Rapidly maturing, low maintenance floodplain restoration.



Additional buildable site area was preserved because space consuming and conventional stormwater facilities were replaced with progressive BMPs.



Wooden bridges were thoughtfully incorporated to seamlessly blend with the surrounding natural environment. This stream crossings required H-25 loading to accommodate emergency vehicle access. The landscape architects coordinated the bridge design and material selection with the client, specialty bridge contractor, structural engineer, fire department personnel and municipal officials.



Each cottage features a 55-gallon rain barrel that is used for watering resident gardens and landscaping.



2,500 gallon cisterns collect water from the rooftops of the hybrid homes and filtered for car washing and gardening.